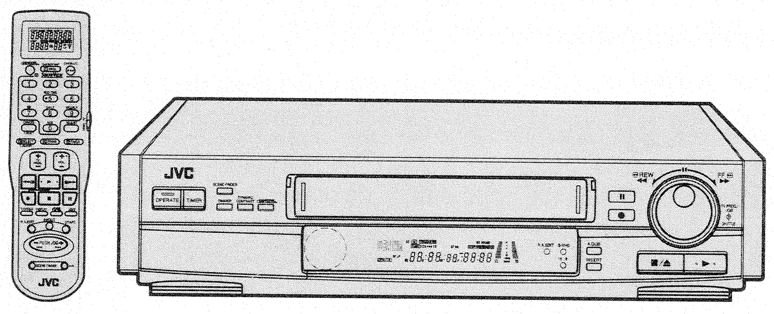
JVC

SERVICE MANUAL

VIDEO CASSETTE RECORDER

HR-S7000EG/EH



625

SPECIFICATIONS *(The specifications shown pertain specifically to the model HR-S7000EG)*

GENERAL

Power requirement : AC 220 – 240 V∿, 50/60 Hz
Power consumption : 24 W
Temperature
Operating : 5°C to 40°C
Storage : –20°C to 60°C
Dimensions (WxHxD) : 426 x 94 x 341 mm
Weight : 4.5 kg
Format : S-VHS/VHS PAL standard with Hi-Fi audio
Maximum recording time (SP) : 240 min. with E-240 video cassette
(LP) : 480 min. with E-240 video cassette

VIDEO/AUDIO

Signal system : PAL-type colour signal and CCIR monochrome signal, 625 lines/50 fields
Recording/Playback system : DA-4 (Double Azimuth) head helical scan system
Signal-to-noise ratio : 45 dB
Horizontal resolution : 250 lines (VHS)
400 lines (S-VHS)
Frequency range : 70 Hz to 10,000 Hz (Normal audio)
20 Hz to 20,000 Hz (Hi-Fi audio)
Input/Output : 21-pin scart connectors
(IN/OUT x 1, IN/DECODER x 1)
RCA connectors
(VIDEO IN x 1, AUDIO IN x 2, AUDIO OUT x 1)
S connectors (IN x 1, OUT x 1)

TUNER/TIMER

TV channel storage capacity : 80 positions (+AUX position "AU")
Channel coverage : VHF 47 – 89/104 – 300/
302 – 470 MHz
UHF 470 – 862 MHz
Aerial output : UHF channel 36
(Adjustable 32 – 40)
Memory backup time : Approx. 3 min.

ACCESSORIES

Provided accessories : Aerial cable,
Infrared remote control unit,
"R03" battery x 2,
Audio cable,
S-Video cable

Design and specifications subject to change without notice. Specifications shown are for SP mode unless otherwise specified.

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No. 82516
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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded (▨) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers
   4) Insulation sheets for transistors
   5) Barrier

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

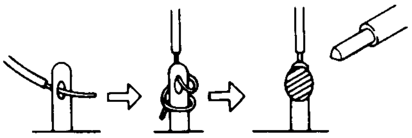


Fig. 1

7. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10–15 kg of force in any direction will not loosen it.

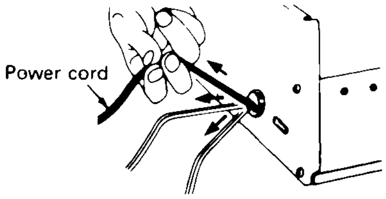


Fig. 2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.
    1) **Connector part number** : E03830-001
    2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
    3) **Replacement procedure**
       (1) Remove the old connector by cutting the wires at a point close to the connector.
       Important : Do not reuse a connector (discard it).

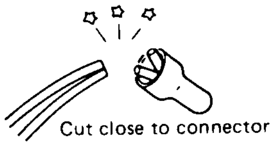


Fig. 3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

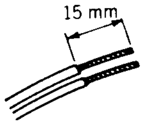


Fig. 4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

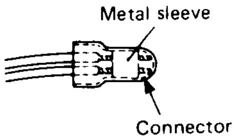


Fig. 5

(4) As shown in Fig. 6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

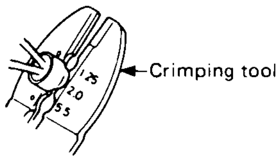


Fig. 6

(5) Check the four points noted in Fig. 7.

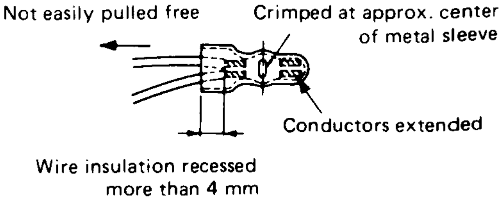

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig. 7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. **Insulation resistance test**
   Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. **Dielectric strength test**
   Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. **Clearance distance**
   When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

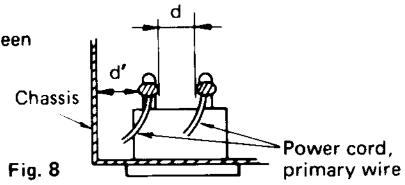


Fig. 8

4. **Leakage current test**
   Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
   Measuring Method: (Power ON)
   Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

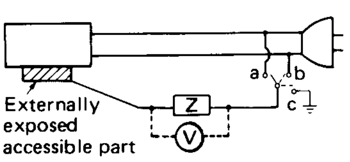


Fig. 9

5. **Grounding (Class I model only)**
   Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).
   Measuring Method:
   Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.

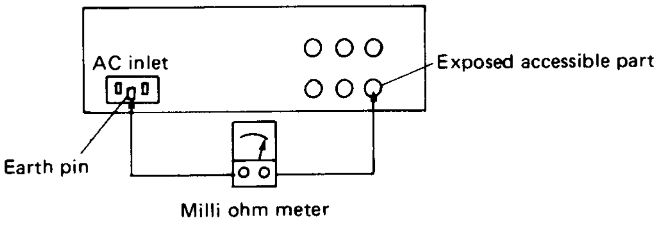


Fig. 10

Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 minute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	–	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ /500 V DC	AC 3 kV 1 minute (Class II) AC 1.5 kV 1 minute (Class I)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Table 1 Specifications for each region

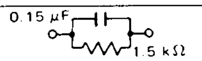
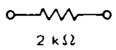
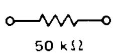
AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	 0.15 μF 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	 2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		 50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

Safety Precautions

The rating plate and the safety caution are on the rear of the unit.

WARNING: DANGEROUS VOLTAGE INSIDE
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

The OPERATE button does not completely shut off mains power from the unit, but switches operating current on and off.

CAUTION

- When you are not using the recorder for a long period of time, it is recommended that you disconnect the power cord from the AC outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the AC outlet prior to connecting or disconnecting any signal lead or aerial.

WARNING

There are two different types of SECAM colour systems: SECAM-L, used in FRANCE (also called SECAM-West), and SECAM-B, used in Eastern European countries (also called SECAM-East).

1. This recorder can also receive SECAM-B colour television signals for recording and playback.
2. Recordings made of SECAM-B television signals produce monochrome pictures if played back on a video recorder of SECAM-L standard, or do not produce normal colour pictures if played back on a PAL video recorder with SECAM-B system incorporated (even if the TV set is SECAM-compatible).
3. SECAM-L prerecorded cassettes or recordings made with a SECAM-L video recorder produce monochrome pictures when played back with this recorder.
4. This recorder cannot be used for the SECAM-L standard. Use a SECAM-L recorder to record SECAM-L signals.

IMPORTANT:

- It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.
- Please read the "Precautions" section of this instruction manual before installing or operating the recorder.

Video tapes recorded with this video recorder in the LP(Long Play) mode cannot be played back on a single-speed video recorder.

S VHS 625 ShowView

- Cassettes marked "S-VHS" and "VHS" can be used with this video cassette recorder. However, S-VHS recordings are possible only with cassettes marked "S-VHS".
- ShowView is a trademark applied for by Gemstar Development Corp. ShowView system is manufactured under licence from Gemstar Development Corporation.

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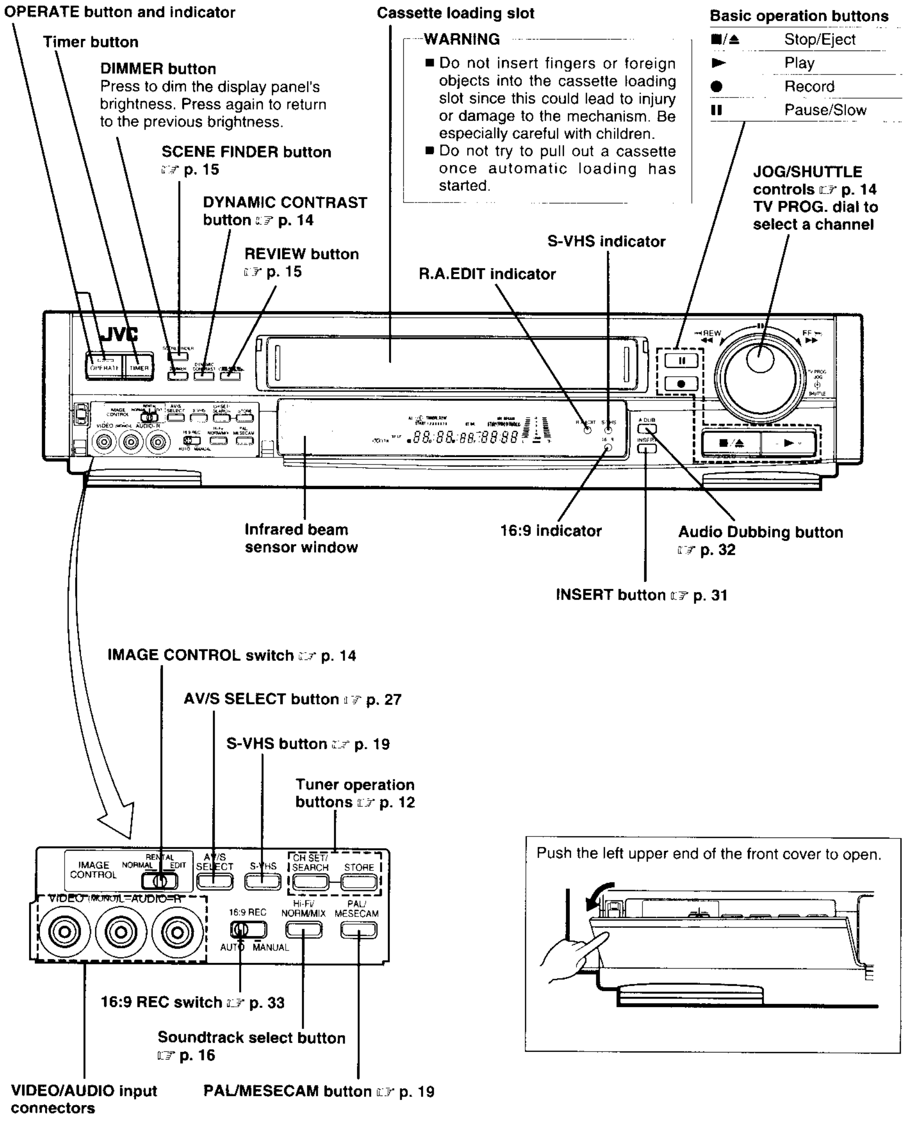
Controls And Indicators

Front Panel



OPERATE button and indicator
Timer button
DIMMER button
Press to dim the display panel's brightness. Press again to return to the previous brightness.
SCENE FINDER button ☞ p. 15
DYNAMIC CONTRAST button ☞ p. 14
REVIEW button ☞ p. 15
Cassette loading slot
R.A.EDIT indicator
S-VHS indicator
Basic operation buttons
JOG/SHUTTLE controls ☞ p. 14
TV PROG. dial to select a channel
JVC
Infrared beam sensor window
16:9 indicator
Audio Dubbing button ☞ p. 32
INSERT button ☞ p. 31
IMAGE CONTROL switch ☞ p. 14
AV/S SELECT button ☞ p. 27
S-VHS button ☞ p. 19
Tuner operation buttons ☞ p. 12
16:9 REC switch ☞ p. 33
Soundtrack select button ☞ p. 16
VIDEO/AUDIO input connectors
PAL/MESECAM button ☞ p. 19
IMAGE CONTROL
NORMAL
RENTAL
EDIT
AV/S SELECT
S-VHS
CH SET/SEARCH
STORE
VIDEO MONO/L–AUDIO–R
16:9 REC
AUTO
MANUAL
HI-FI/NORM/MIX
PAL/MESECAM

WARNING

- Do not insert fingers or foreign objects into the cassette loading slot since this could lead to injury or damage to the mechanism. Be especially careful with children.
- Do not try to pull out a cassette once automatic loading has started.

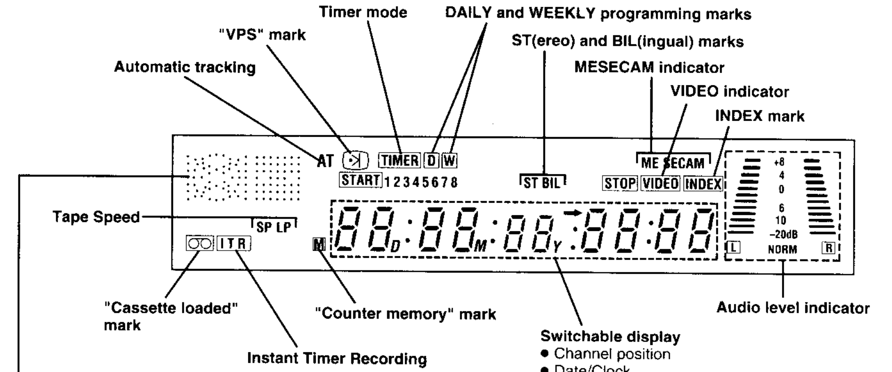
Basic operation buttons

■/▲	Stop/Eject
►	Play
●	Record
❚❚	Pause/Slow

Push the left upper end of the front cover to open.

Controls And Indicators (cont'd)

Display Panel


Timer mode
DAILY and WEEKLY programming marks
"VPS" mark
ST(ereo) and BIL(ingual) marks
Automatic tracking
MESECAM indicator
VIDEO indicator
INDEX mark
AT
TIMER D W
START 12345678
ST BIL
ME SECAM
STOP VIDEO INDEX
+8
4
0
6
10
-20dB
NORM
L
R
Tape Speed
SP LP
ITR
M
88D:88M:88Y:88:88
"Cassette loaded" mark
"Counter memory" mark
Audio level indicator
Instant Timer Recording

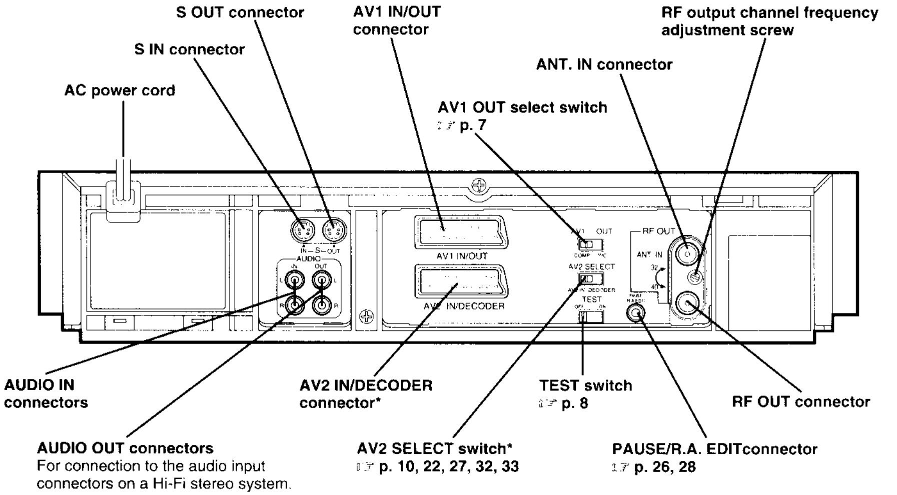
Switchable display
- Channel position
- Date/Clock
- AUX indicator(AU 1, AU 2 or F-AU)
- Child lock indicator
- Timer start/stop time
- Instant timer recording time
- Real channel
- Realtime tape counter
- INDEX code number

Symbolic mode indicators

PLAY:	▷	REVERSE PLAY:	◁	RECORD:	○	INSERT:	▷○
FF:	▷▷	REW VARIABLE SHUTTLE SEARCH:	◁ ◁◁*	RECORD PAUSE:	○ ▯▯▯	INSERT PAUSE:	▷○ ▯▯▯
REW:	◁◁	STILL: FORWARD SLOW:	▷ ▯▯▯	AUDIO DUBBING:	◌	AUDIO DUBBING INSERT:	▷◌
FF VARIABLE SHUTTLE SEARCH:	▷ ▷▷*	STILL: REVERSE SLOW:	◁ ▯▯▯	AUDIO DUBBING PAUSE:	◌ ▯▯▯	AUDIO DUBBING INSERT PAUSE:	▷◌ ▯▯▯

* The indicator will blink during turbo search.

Rear Panel

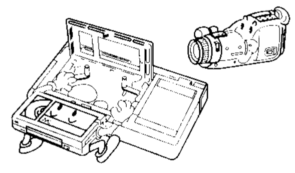

S OUT connector
AV1 IN/OUT connector
RF output channel frequency adjustment screw
S IN connector
ANT. IN connector
AC power cord
AV1 OUT select switch
☞ p. 7
AV1 OUT
COMP
AV1 IN/OUT
AV2 SELECT
AV2 IN/DECODER
TEST
OFF ON
RF OUT
ANT IN
32
40
IN – S – OUT
AUDIO
IN OUT
L R
AUDIO IN connectors
AV2 IN/DECODER connector*
TEST switch
☞ p. 8
RF OUT connector
AUDIO OUT connectors
For connection to the audio input connectors on a Hi-Fi stereo system.
AV2 SELECT switch*
☞ p. 10, 22, 27, 32, 33
PAUSE/R.A. EDITconnector
☞ p. 26, 28

***When AV2 SELECT switch is set to AV2 IN:**
AV2 IN/DECODER connector works as auxiliary input connector.
When AV2 SELECT switch is set to DECODER:
AV2 IN/DECODER connector works as input connector for a decoder.

Usable Cassettes

Full-Size VHS
E-30 (SE-30**)
E-60 (SE-60**)
E-90
E-120
E-180 (SE-180**)
E-240

Compact VHS*
EC-30 (SE-C30**)
EC-45 (SE-C45**)

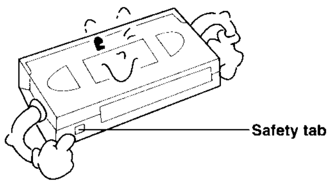


* Compact VHS camcorder recordings can be played on this video recorder. Simply place the recorded cassette into a VHS Cassette Adapter and it can be used just like any full-sized VHS cassette.

** This video recorder can record on regular VHS and Super VHS cassettes. However, it will record and play back regular VHS signals only. It is not possible to play back a recorded Super VHS tape.

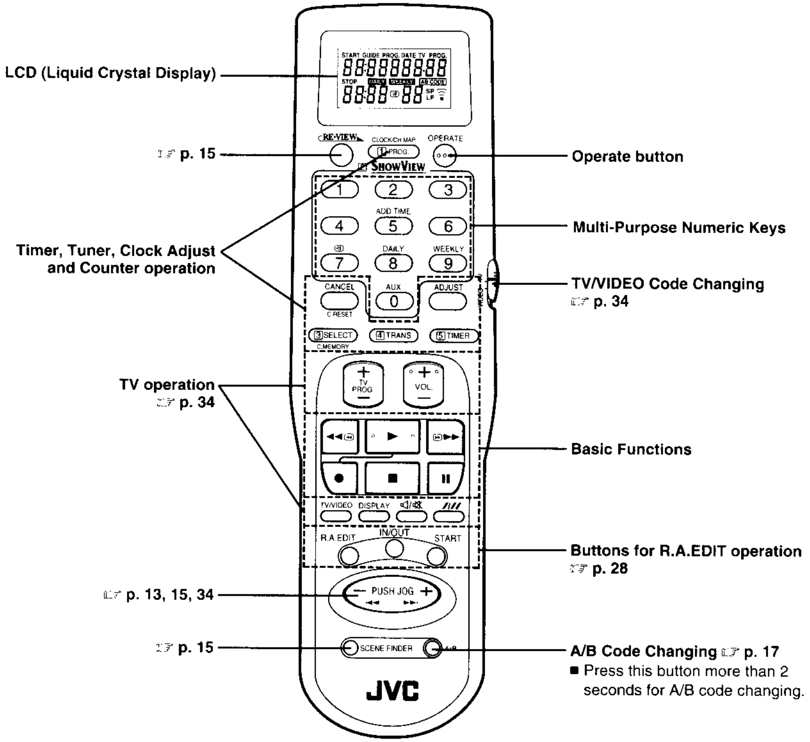
Accidental Erasure Prevention

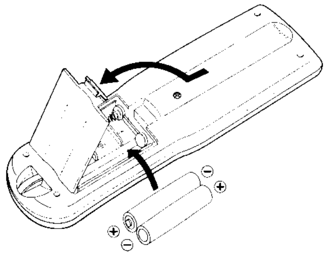
To prevent accidental recording on a recorded cassette, remove its safety tab. To record on it later, cover the hole with adhesive tape.



Controls And Indicators (cont'd)

Wireless Remote Control


LCD (Liquid Crystal Display)
☞ p. 15
Timer, Tuner, Clock Adjust and Counter operation
TV operation ☞ p. 34
☞ p. 13, 15, 34
☞ p. 15
Operate button
Multi-Purpose Numeric Keys
TV/VIDEO Code Changing ☞ p. 34
Basic Functions
Buttons for R.A.EDIT operation ☞ p. 28
A/B Code Changing ☞ p. 17
■ Press this button more than 2 seconds for A/B code changing.
JVC
SHOWVIEW
PUSH JOG
SCENE FINDER



Installing Batteries

1. Open the battery compartment cover.
2. Insert 2 "R03"-size batteries (provided) in the correct directions.
3. Replace the cover.

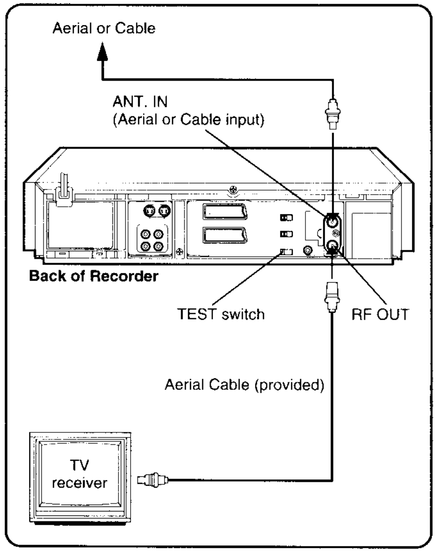
How To Use

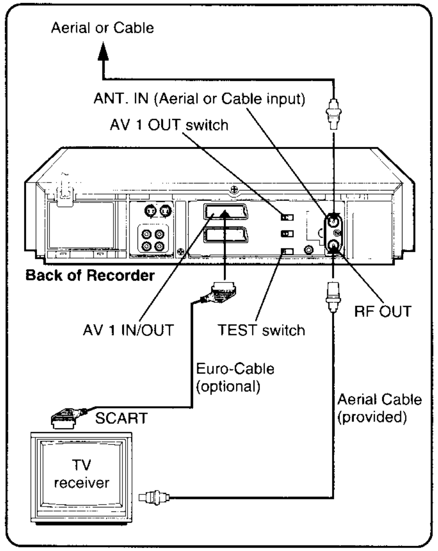
The remote control can operate most of your video recorder's functions, as well as basic functions of TV sets of JVC and other brands. ☞ p. 34.

- Point the remote control toward the sensor window.
- The maximum operating distance of the remote control is about 8 m.

Connections

It's essential that your video recorder be properly connected. Follow these steps carefully. THESE STEPS MUST BE COMPLETED BEFORE ANY VIDEO OPERATION CAN BE PERFORMED.


Aerial or Cable
ANT. IN (Aerial or Cable input)
Back of Recorder
TEST switch
RF OUT
Aerial Cable (provided)
TV receiver


Aerial or Cable
ANT. IN (Aerial or Cable input)
AV 1 OUT switch
Back of Recorder
AV 1 IN/OUT
TEST switch
RF OUT
Euro-Cable (optional)
SCART
Aerial Cable (provided)
TV receiver

A RECORDER-TO-TV CONNECTION

RF CONNECTION

For TV sets without AV input terminals:

1. Connect the TV aerial cable to the recorder.
2. Connect the recorder to the TV's aerial terminal.

AV CONNECTION

For TV sets with AV input terminals:

1. Connect the aerial, recorder and TV as per "RF CONNECTION".
2. Connect the recorder to the TV's 21-pin SCART connector.

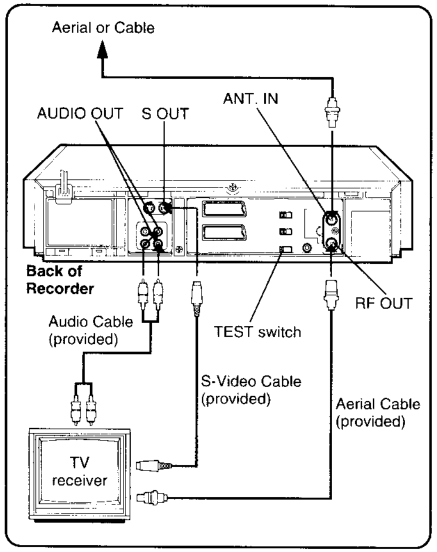
AV1 OUTPUT SIGNAL SELECTION

AV1 OUT
COMP. Y/C

The AV1 IN/OUT connector accepts only a composite signal (regular video signal), but can deliver either a composite video signal or a Y/C signal (a signal in which the luminance and chrominance signals are separated) according to the setting of the rear panel AV1 OUT switch.

- If your TV's SCART connector is compatible only with the regular video signal, set this switch to COMP.
- If your TV's SCART connector is compatible with the Y/C signal, set this switch to Y/C. You will better enjoy high-quality S-VHS pictures.
- If your TV's SCART connector is RGB-compatible, connect the KM-V7EG RGB Signal Converter (optional) between the AV1 IN/OUT connector and the TV's SCART connector, and set this switch to Y/C. The Y/C signal will be converted into an RGB signal for reproduction of high-quality S-VHS pictures.

Connections (cont'd)



RECORDER-TO-TV CONNECTION (cont'd)

S-VIDEO CONNECTION

For TV sets with an S-VIDEO input terminal:

1. Connect the aerial, recorder and TV as per "RF CONNECTION".
2. Connect the recorder's S OUT terminal to the TV's S-VIDEO IN terminal.
3. Connect the recorder's AUDIO OUT terminals to the TV's AUDIO IN terminals.

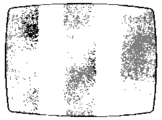
NOTES:

- To make the most of Super VHS picture performance, we recommend you use the S-VIDEO connection.
- To operate the recorder with your TV using the S-VIDEO connection, set your TV to the VIDEO (or AV mode).
- If your television is not stereo-capable, use the recorder's AUDIO OUT connectors to connect to an audio amplifier for Hi-Fi stereo sound reproduction.

B TUNE THE TV TO YOUR VIDEO RECORDER

The video recorder sends picture and sound signals via the RF connecting cable to your TV on UHF channel 36.

TEST SIGNAL



1. Turn on the recorder.
2. Set the TEST switch to ON.
3. Press TV/VIDEO to engage the VIDEO mode.
4. Set your TV to the video channel. Tune the TV to bring the two vertical white bars on the screen most clearly. (UHF/CH 36)
   - Your TV should be set to the channel designated for use with a video recorder or to a spare channel if there is not a specified video channel on your TV.
5. Reset the TEST switch to OFF.

NOTES:

- If CH36 is occupied by a local station, adjust the RF output channel adjustment screw to use another channel between CH32 and CH40 instead.
- If some interference noise is continually seen on the screen, consult your JVC dealer.

IMPORTANT:

With RF Connection

- It is always necessary to set your TV's channel to UHF channel 36 (or adjusted channel) to operate the recorder with your TV.

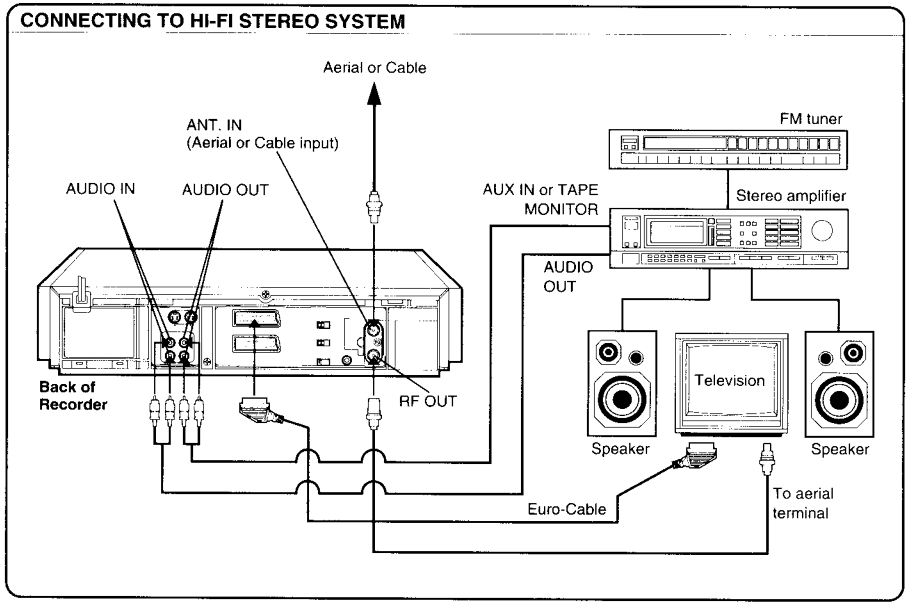
With AV Connection

- Set your TV to the VIDEO (or AV), Y/C, or RGB mode according to the type of your TV's SCART connector.
- For switching the TV's mode, refer to the instruction manual of your television.
- The TV/VIDEO button switches the recorder's mode between TV and VIDEO. When the power is turned on, the recorder's TV mode is selected. To use the recorder's function, select the VIDEO mode.
- When the TV/VIDEO button is used to change the recorder's mode to VIDEO, the connected TV's mode also switches to VIDEO automatically.

With S-VIDEO Connection

- Set your TV to the VIDEO (or AV) mode. The S-VIDEO connection has priority over AV connection.

CONNECTING TO HI-FI STEREO SYSTEM



If you have a Hi-Fi stereo system, you can connect your video recorder to it so that the sound can be heard through your Hi-Fi system. Please make these additional connections:

HI-FI AUDIO CONNECTION

1. Connect the AUDIO IN L and R connectors of the recorder to the recording output terminals of the amplifier.
2. Connect the AUDIO OUT L and R connectors of the recorder to the AUX IN or TAPE MONITOR terminals of the amplifier.

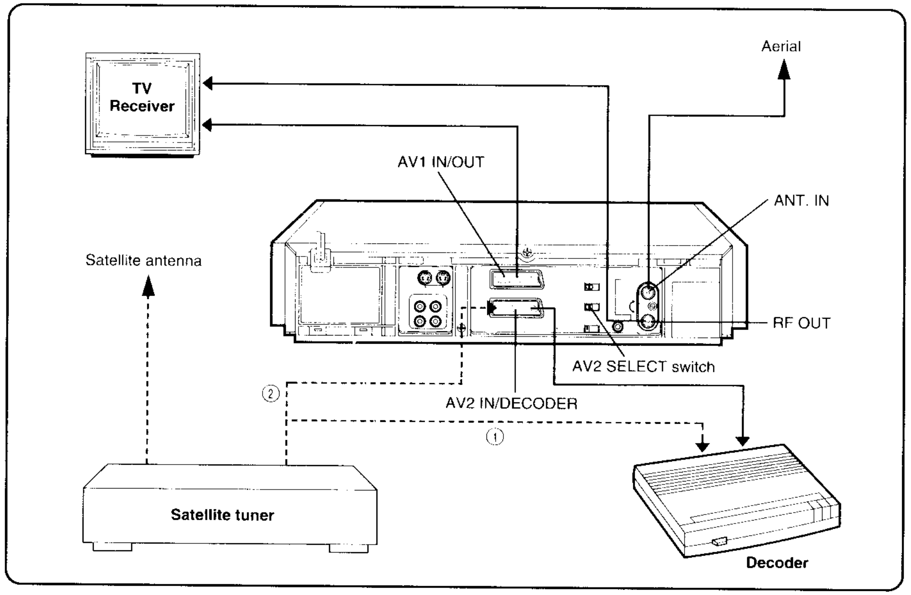
NOTES:

- Make sure L and R are correct when connecting the audio input and output connectors of the recorder to a stereo amplifier.
- If stereo or bilingual TV broadcasts are receivable in your area, this recorder can record them independently of the TV set and play them back through the connected audio system.
- When listening to sound from the connected stereo system, turn down the sound volume of the TV completely.

CAUTION:

- This recorder has a dynamic range of more than 90 dB with regards to its hi-fi audio capability. It is recommended that you check the maximum level if you are going to listen to the hi-fi audio signals through a stereo amplifier. A sudden surge in speaker input may cause speaker damage.
- Some speakers and televisions are specially shielded to prevent television interference. If both are of the non-shielded type, do not place the speakers adjacent to the TV set, otherwise the video playback picture may be adversely affected.

Information On Scrambled Broadcasts



SET UP

The AV2 IN/DECODER connector can be used as an input terminal for an external decoder (descrambler). Simply connect a decoder and you can enjoy the variety of programming that is available through scrambled channels.

1. Connect your recorder and TV via their AV connectors (☞ p. 7, AV CONNECTION).
2. Set the AV2 SELECT switch on the recorder's rear panel to "DECODER".
3. Connect your recorder's AV2 IN/DECODER connector to the decoder's Euroconnector using a 21-pin SCART cable.
4. Set the tuner to receive scrambled channels (☞ p. 12, Setting The Tuner).

NOTES:

When connecting a satellite tuner...

- Connect the satellite tuner to the decoder ①, or if you don't have a decoder connect the satellite tuner directly to the video recorder ②.
- Set the AV2 SELECT switch on the rear panel to "AV2 IN".
- To view a programme via the satellite tuner, select AU 2 mode by pressing the numeric key "0" and then AV/S SELECT until "AU 2" appears on the display panel.

WATCHING SCRAMBLED CHANNELS

Preparation

- Turn on the TV.
- Select VIDEO channel (or AV mode).

1. Press TV/VIDEO to select the VIDEO mode.
2. Choose a scrambled channel using the Numeric keys or TV PROG. just as you would with regular stations.

Watching One Programme While Recording Another

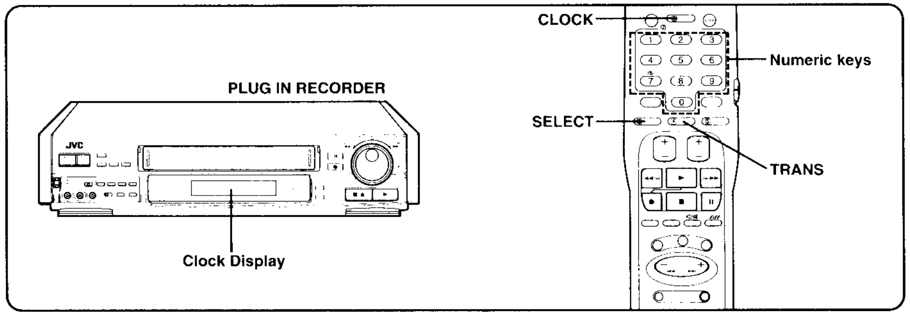
To watch a regular TV programme while recording a scrambled programme:

- Press the TV PROGRAM button on the TV's remote control and select the channel you want to watch.
- To watch the scrambled programme that is being recorded, press TV/VIDEO and select the VIDEO mode.

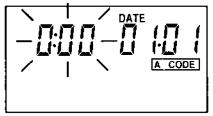
To watch a scrambled TV programme while recording a regular programme:

- Press the TV PROGRAM button on the TV's remote control and select the scrambled channel. After displaying a scrambled picture for a few seconds, the programme will become descrambled and a viewable picture will appear on the TV screen.

Setting The Clock

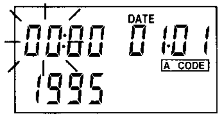


1. **Load batteries (☞ p. 6).**

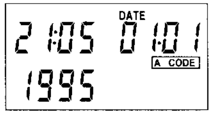


Remote Control's LCD

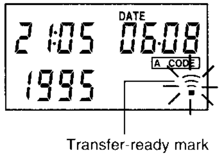
2. **Press CLOCK.**



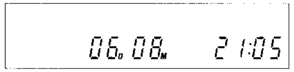
3. **Press the appropriate numeric keys to input the time.**
   - Example: For 21:05, press 2 1 0 5.



4. **Press the appropriate numeric keys to input the day, month and year.**
   - Example: For 6th August, 1995, press 0 6 0 8 1 9 9 5.



5. **Press TRANS with the remote control directed to the recorder's remote sensor window.**
   - The remote control's clock will start. At the same time, the set data will be transferred to the recorder.



Recorder's Display Panel

TO MAKE CORRECTIONS

Press SELECT button so that the item you want to change blinks. Re-input that item. Continue to step 5.

AFTER A POWER CUT

Since your video recorder has a 3-minute backup memory, it will not be affected by short power cuts. If mains power is unavailable for over 3 minutes, however, the recorder's display will reset to 0:00. In such a case, simply transfer the remote control's time to the recorder.

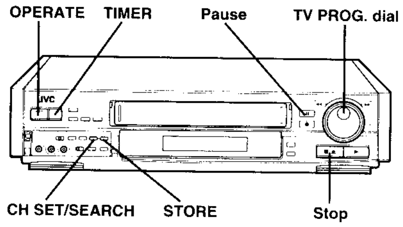
1. Press CLOCK three times.
2. Press TRANS with the remote control directed to the recorder's remote sensor window.

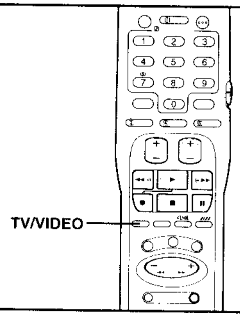
NOTES:

- If the day and month data is invalid (such as 31st April), the month digits are cleared automatically and the day digits will blink. Input again.
- If the year digits are automatically cleared in step 4, it is possible that you have input 29th February for a non-leap year. Input again.
- When the batteries are exhausted, the time display will change to "0:00" and start blinking. Replace all the batteries and set the clock again.

Setting The Tuner

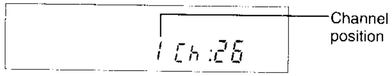
- Turn on the TV: Select VIDEO channel (or AV mode).
- When the decoder is connected, switch on the decoder.





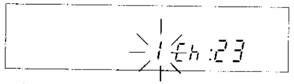
The procedure introduced here lets you assign receivable channels in your area to channel positions on your video recorder's tuner. Once stored, these can be accessed with the TV PROG. buttons.

1. **Press OPERATE to turn on the recorder.**
2. **Press TV/VIDEO to engage the VIDEO mode.**
3. **Press CH SET/SEARCH until the display panel shows the following.**



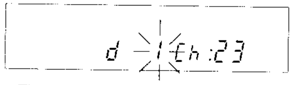
Ch = Regular CC = Cable

4. **Press CH SET/SEARCH again briefly to start automatic scanning for receivable channels.**



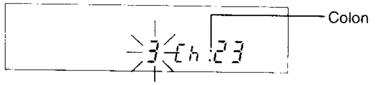
- Automatic scanning stops when a station is detected, and the channel position will blink.
- Holding down CH SET/SEARCH will start reverse search.
- If you don't want to store the station detected, simply press CH SET/SEARCH to continue automatic scanning.

5. **Press TV/VIDEO on the remote control when a scrambled broadcast is detected.**



- The programme will be descrambled. For normal (non-scrambled) broadcasts, do not press TV/VIDEO.

6. **Turn the TV PROG. dial to select the channel position where you wish to store that TV station.**

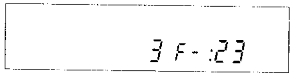


7. **Press STORE to store the station.**
   - The colon will disappear when the station is stored.
8. **Repeat steps 4 through 7 for other receivable channels.**
   - If the picture of the detected station is not satisfactory, try fine-tuning. See below.
9. **Press Stop on the recorder to disengage the Channel Set mode.**

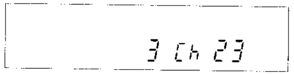
TO GET A CLEARER PICTURE — Fine-Tuning—

After step 8, you can perform Auto Fine-Tuning for all the stored stations at once.

1. Press Pause for more than 2 seconds.
   - Auto Fine-Tuning will start.



   - After completion of Auto Fine-Tuning for all the stored stations, the display panel will return to step 7.

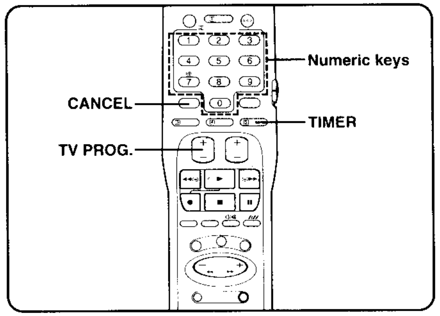


2. Continue to step 9.

If you want to fine-tune a specified station, try fine-tuning manually.

1. Turn the TV PROG. dial to select the station you wish to fine-tune.
2. Press Pause briefly.
3. Turn the TV PROG. dial so that the picture becomes clearer.
4. Press Pause briefly again.
5. Continue to step 9.

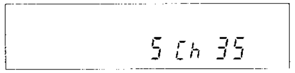
Playback



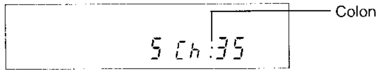
TO DELETE STORED CHANNELS

Please follow the procedure described below when you wish to delete a poorly received channel.

1. Press TV PROG. to select the channel position you want to skip.
2. Press CH SET/SEARCH for more than 2 seconds.



3. Press CANCEL.

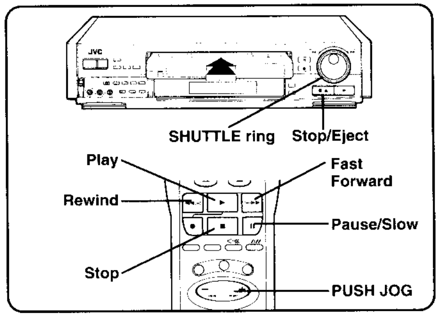


   - The colon will appear when the station is deleted. Channel position 5 can no longer be chosen by TV PROG. buttons.
4. Press Stop on the recorder to disengage the Channel Set mode.

TO STORE NEW CHANNELS

Please follow the procedure described below when you wish to add a new channel.

1. Press CH SET/SEARCH for more than 2 seconds.
2. Press TIMER.
   - Real channel starts blinking.
3. Press TIMER to change the band between Ch and CC, if necessary.
4. Press numeric keys to input the number of the real channel you want to store.
5. Press numeric keys to input the number of a vacant channel position.
6. Press STORE to store the channel.
7. Press Stop on the recorder to disengage the Channel Set mode.



Basic Operations

Preparation

- Turn on the TV.
- Select VIDEO channel (or AV mode).

1. **Load a cassette.**
   - The recorder power will come on automatically.
   - The counter will be reset to "0:00:00" automatically.
   - If the safety tab on the cassette is removed, playback will start automatically.
   - Select the appropriate colour system by pressing the PAL/MESECAM button.(☞ p. 19)
2. **Press Play to start playback.**
3. **Press Stop to stop playback.**
   - To rewind the tape, press Rewind or turn the SHUTTLE to the left and release it.
   - To fast-forward the tape, press Fast Forward or turn the SHUTTLE to the right and release it.
   - To stop rewind or fast-forward, press Stop.
4. **Press Stop/Eject on the recorder to eject the tape.**

Variable-Speed/High-Speed (Turbo) Search, Still Playback/Frame Advance/Slow Motion

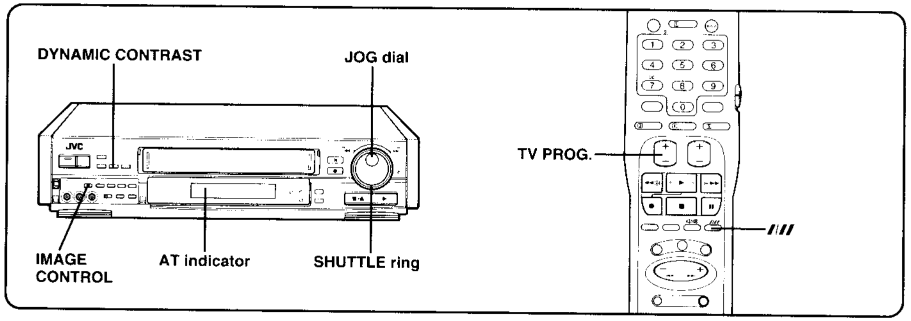
During Playback:

- Press PUSH JOG |◀◀ or ▶▶| for variable-speed search.
- The more times the button is pressed, the faster the playback picture will move.
- To decrease speed, press the button for the opposite direction.
- Press Fast Forward for high-speed forward search, or Rewind for high-speed reverse search.
- For short searches, keep Fast Forward or Rewind pressed for more than 2 seconds. When released, normal playback will continue.
- Press Pause/Slow to view a still picture.
- Press again to advance the picture frame by frame.
- Press Pause/Slow for 2 seconds for slow motion.

During Still:

- For frame-by-frame playback in the forward or reverse direction, press PUSH JOG |◀◀ or ▶▶| in the corresponding direction.

Playback (cont'd)



Other Functions

JOG/SHUTTLE Control

You can view pictures in slow to fast motion, or frame-by-frame.

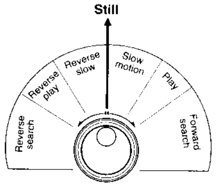
During Playback or Still:

1. Turn the outer ring (SHUTTLE) in either direction. The farther the ring is rotated, the faster the search speed. Releasing the ring stops the picture in the Still mode.
   - For fast-forward with a visible picture, turn the SHUTTLE all the way to the right and release it within 1 second.
   - For rewind with a visible picture, turn the SHUTTLE all the way to the left and release it within 1 second.

During Playback or Still:

1. Turn the inner dial (JOG) clockwise or counterclockwise for jog control. The tape moves frame-by-frame at the speed with which the dial is turned, in the direction the dial is rotated.

To resume normal playback, press Play button.



Manual Tracking

Your video recorder is equipped with automatic tracking control. If you wish to adjust tracking manually, you can override this function.

During Playback:

1. Press the **///** button.
   - The AT indicator will go out.
2. Press TV PROG. + or – to adjust tracking.
   - Press the **///** button to return to automatic tracking.

During Slow:

1. Simply press TV PROG. + or – to adjust tracking.

Dynamic Contrast

Use this function to improve image contrast which tends to degrade especially with wide-screen pictures.

During Playback:

1. Press DYNAMIC CONTRAST on the recorder.
   - The button will light in green.
   - Pressing the button again turns off the light.
   - Turn on/off the light according to the type of playback picture you want.
   - The setting will remain effective even though you turn on/off the recorder.

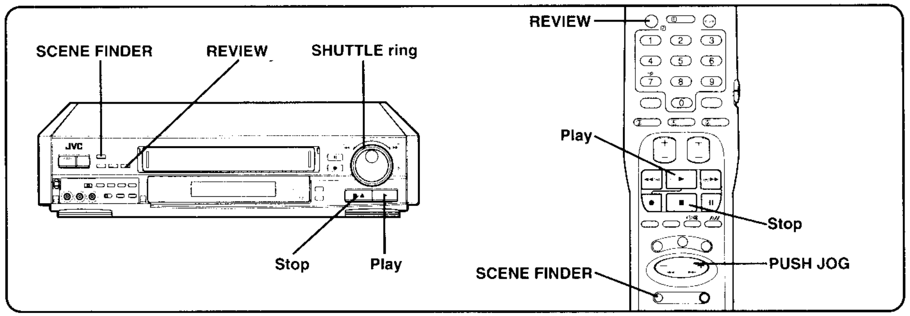
Image Control

You can choose the type of playback picture that's best for the given application.

NORMAL:	Normally set the IMAGE CONTROL switch to this position.
RENTAL:	Makes the picture clearer when viewing tapes with noise due to repeated playback, such as rental videos.
EDIT:	For improved dubbing and editing results.

NOTES:

- The recorder automatically stops when still continues for more than 5 minutes.
- If the still picture is unstable, use the TV PROG. buttons to correct the picture.
- During search playback, some noise bars will appear.
- There is no audio during search, slow, still, or frame-by-frame playback.
- When a new tape is inserted, the recorder enters the automatic tracking mode automatically.
- When playing back LP recordings in the search, still or frame-by-frame playback mode, the picture will be distorted and there will be a loss of colour.
- When the DYNAMIC CONTRAST button is lit, Dynamic Contrast has priority over Image Control regardless of the setting of the IMAGE CONTROL switch.



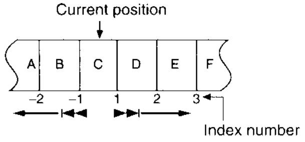
Index Search

Your recorder automatically marks index codes at the beginning of each recording. This function gives you quick access to any one of 9 index codes in either direction.

During Stop:

1. Press PUSH JOG ⏮ or ⏭. "INDEX –1" or "INDEX 1" will be displayed on the display panel and search will begin in the corresponding direction.
2. If you wish to access index codes 2 through 9, press PUSH JOG repeatedly until the correct index number is displayed.

   Ex.: To locate the beginning of B from the current position, press PUSH JOG ⏮ twice.
   To locate the beginning of D from the current position, press PUSH JOG ⏭ once.



- When the specified index code is found, playback will start automatically

ReView Function

Simply by pressing a single button, the recorder power comes on, rewinds, and begins playback of the last recording. This makes it easier to "review" the programme you have timer-recorded.

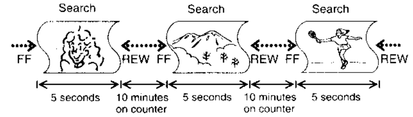
When the recorder power is off:

Press REVIEW.

- After the recorder power comes on, the tape will be rewound to the beginning of the last recording (where the index code is placed) and playback will start automatically.
- To play back a recording located 2 index codes away, press REVIEW twice. You can access any one of up to 9 index codes.
- ReView is not possible while the recorder is in the Timer mode.
- The recorder's REVIEW button lights when timer-recording is finished, and blinks while the tape is being rewond.

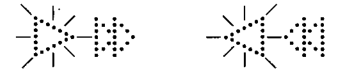
Scene Finder

This function helps you check contents of unlabeled recorded tapes at the touch of a single button.



Anytime except during Record:

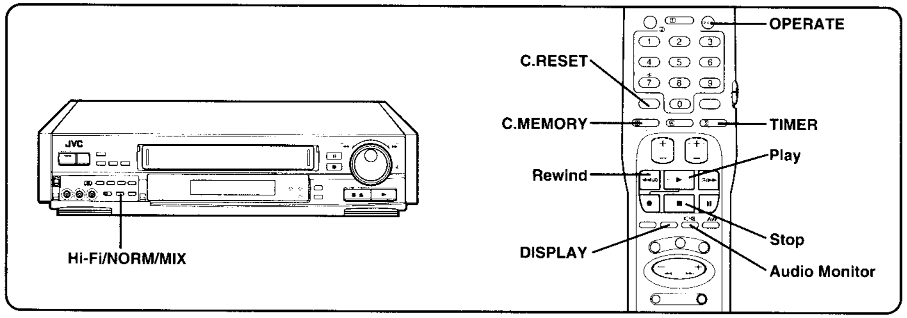
1. Press SCENE FINDER.
   - The recorder starts high-speed forward search for 5 seconds and then fast-forwards 10 minutes on counter. This will be repeated until the end of the tape is reached.
   - To start Scene Finder in the reverse direction, press SCENE FINDER and then turn the SHUTTLE ring to the left within 2 seconds. It will be repeated until the beginning of the tape.
   - During Scene Finder, the display panel shows the following.



In the forward direction In the reverse direction

   - During Scene Finder High-Speed Search, you can also hear the tape sound. During Fast Forward (or Rewind), you will hear the current TV sound instead.
   - Scene Finder does not function during Index Search and Random Assemble Editing.
2. Press Stop to stop Scene Finder.

Playback (cont'd)



Other Functions (cont'd)

Counter Memory

During Playback:

1. Press DISPLAY until a counter reading appears on the display panel.
2. Press C.RESET at a point you wish to locate later.
   - The counter will read "0:00:00".
3. Press C.MEMORY.
   - The M indicator will light on the display panel.
4. When you wish to return to that point, press Stop and then Rewind.
   - The tape will rewind and stop at about "0:00:00" automatically.
5. To cancel the Counter Memory mode, press C.MEMORY again.

Next Function Memory

Your recorder can memorise what to do after rewind.
During Stop:

For automatic start of playback after the tape is rewound:

1. Press Rewind.
2. Press Play within 2 seconds.

For automatic power off after the tape is rewound:

1. Press Rewind.
2. Press OPERATE within 2 seconds.

For automatic timer standby after the tape is rewound:

1. Press Rewind.
2. Press TIMER within 2 seconds.

Repeat Playback

During Playback:

1. Press Play for more than 5 seconds, and release.
   - The Play indicator (▷) on the display panel will blink slowly.
   - The tape will be played all the way to the end 20 times automatically, and then stop.
2. To stop playback at any time, press Stop.

Soundtrack Selection

During Playback:

Your video recorder is capable of recording three soundtracks (HIFI L, HIFI R and NORM) simultaneously, and playing back the selected soundtrack.

- Pressing Audio Monitor on the remote control changes the track:

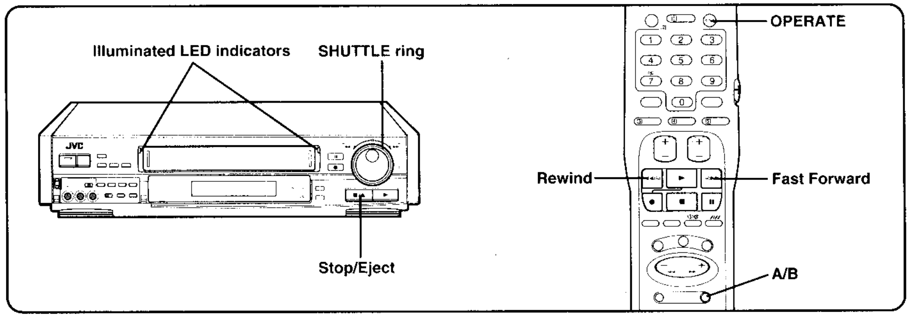
Track: (on display panel)	Use:
→ L + R ↓	for Hi-Fi stereo tapes.
L ↓	for main audio of bilingual tapes.
R	for sub audio of bilingual tapes.

- Pressing Hi-Fi/NORM/MIX on the recorder changes the mode:

Mode:	Track: (on display panel)	Use:
→ HIFI ↓	L and/or R	for Hi-Fi stereo tapes.
NORM ↓	NORM	for audio-dubbed tapes.
MIX	NORM + L and/or R	for audio-dubbed tapes.

NOTE:

- Normally use the L + R position. Then Hi-Fi stereo tapes are played back in stereo, and tapes with normal audio only are played back automatically in the NORM mode.



Illuminated Operation Confirmation

The two LED indicators, located on both sides of the cassette loading slot, confirm the recorder has received commands you send from the remote control. The operation modes and the corresponding indications are listed below.

Mode	Colour of LED indicators		How they're displayed
	Left	Right	
When loading a cassette. When power is turned on (with a cassette already loaded).	G	G	Lit for 2 seconds
When playback starts.	G	G	Blink 3
When recording starts.	R	R	Blink 3
While in the Record-Pause mode.	R	R	Lit
When FF (or Index Search FF) starts.	—	G	Blink for 5 seconds
When REW (or Index Search REW or Instant ReView) starts.	G	—	Blink for 5 seconds
When timer-programmed data is transferred from the remote control to the recorder.	O	O	Lit for 3 seconds
When timer-programmed data is not successfully transferred from the remote control to the recorder.	O	O	Blink for 5 seconds

G:Green R:Red O:Orange

To stop the indications:

If you don't need the LED indications, you can turn it OFF by following the instructions below.

1. If there is a cassette inserted in the recorder, press the Stop/Eject button to eject the cassette, and then turn off the power.
2. Hold the Stop/Eject button for more than 3 seconds.
   - Both of the LED indicators in Green will blink twice, and the function will be turned OFF.
   - If you want to turn it ON again, eject the cassette from the recorder and turn off the power, and then hold down the Stop/Eject button for more than 3 seconds. Both of the LED indicators will light up for a second and the function will be turned ON again.

Open Search Function

Your video recorder lets you view the picture being rewound or fast-forwarded so you can easily check how far the tape has gone.

During Rewind:

1. Keep the remote's Rewind button pressed, or turn the SHUTTLE ring fully to the left.
   - The rewinding tape's picture will be visible.
2. Release the Rewind button or SHUTTLE ring to resume normal rewinding.

During Fast Forward:

1. Keep the remote's Fast Forward button pressed, or turn the SHUTTLE ring fully to the right.
   - The fast forwarding tape's picture will be visible.
2. Release the Fast Forward button or SHUTTLE ring to resume normal fast forwarding.

Remote A/B Code Switching

The remote control is capable of controlling two JVC video recorders independently; one set to respond to your remote control's A code control signals and another set to respond to B code control signals.

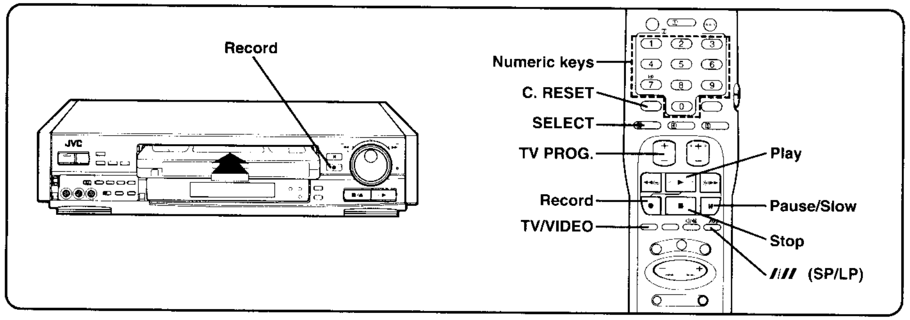
The remote control is preset to send A code signals because your video recorder is initially set to respond to A code signals. You can easily modify your video recorder to respond to B code signals.

1. Unplug the recorder's power cord from the AC outlet.
2. Press the A/B button for more than 2 seconds to switch to B code.
3. Plug the power cord back into the AC outlet. Do not use other remote controls at this stage.
4. Turn the recorder power on by using the remote control's OPERATE button. The recorder will now only respond to B code signals.

NOTE:

Some TV sets may malfunction in response to the B mode. If this happens switch back to the A mode.

Recording



Basic Operations

Preparation

- Turn on the TV.
- Select VIDEO channel (or AV mode).

1. **Load a cassette.**
   - The recorder power will come on automatically.
   - Select the appropriate colour system by pressing the PAL/MESECAM button.(☞ p. 19)
2. **Press TV/VIDEO to engage the VIDEO mode.**
3. **Press TV PROG. or the numeric keys to select the channel you wish to record.**
   - You can also use the recorder's TV PROG. dial to select the channel.
4. **Press SP/LP to select the tape speed.**
5. **Press Record and Play simultaneously.**
6. **Press Pause/Slow to pause recording.**
7. **Press Play to resume recording.**
8. **Press Stop to stop recording.**

NOTES:

- To start recording with the recorder's Record button, press it once on its own.
- After pause, when recording is resumed, a few frames recorded before the pause may be overlapped by the new recording. This is meant to reduce picture distortion and is not a malfunction.
- The recorder automatically stops when record-pause continues for more than 5 minutes.
- If the Record button does not work, check to see if the cassette's safety tab has been removed.
- The channel cannot be changed while recording is in progress. To change the channel, engage the record-pause mode, then change the channel.
- The recorder automatically rewinds when the end of the tape is reached during recording.
- When a VPS programme is being broadcast on the selected channel, "▣" mark appears on the display panel. ☞ p. 25 for information on VPS.

Other Functions

To Watch Another Programme While Recording

During Record:

1. If your recorder is connected to the TV via AV connection, press TV/VIDEO.
   - The recorder's VIDEO indicator and the TV broadcast being recorded will disappear.
2. Use the channel controls on the TV to select the other channel you wish to view.
   - The programme selected with the TV channel controls will appear on the TV screen while the one selected with the video recorder's channel controls will be recorded on the tape.
   - If a decoder is connected to the recorder (☞ p. 10), you can select a scrambled channel as well with the TV channel controls.

Instant Timer Recording (Off Timer)

You can start a recording and then set the recorder to shut off automatically after a set duration.

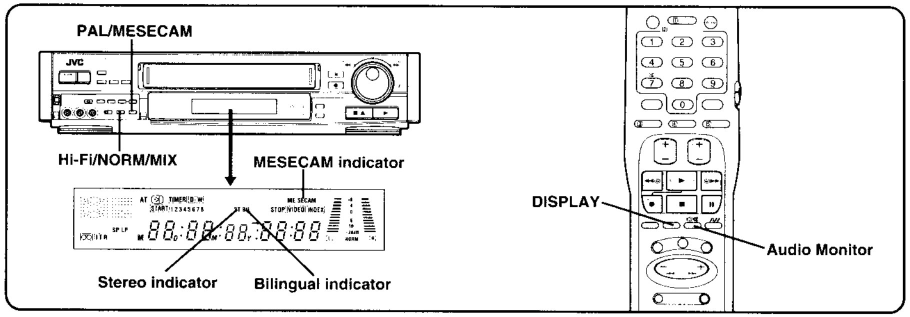
During Record:

1. Press recorder's Record. "ITR" and "0:30" indications appear, advising that power will switch off after 30 minutes.
2. Press Record again to delay the off-time by 30-minute increments (up to 4 hours).
   - For more precise setting, use the remote control's SELECT and TV PROG. buttons to set the exact time required (possible up to 8 hours and 59 minutes).

Elapsed Recording Time Indication

When you need to know the exact time of a recording.

1. Press DISPLAY until a counter reading appears on the display panel.
2. Press C.RESET before starting recording or playback.
   - The counter will be reset to "0:00:00" and show the exact elapsed time as the tape runs.



Stereo And Bilingual

Your recorder is equipped with a Sound-Multiplex decoder for reception of stereo and bilingual broadcasts.

- When a stereo programme is being received, the ST indicator lights on the display panel.
- When a bilingual programme is being received, the BIL indicator lights on the display panel.

To Record Stereo Programmes

Stereo programmes are automatically recorded in stereo on the Hi-Fi audio track (with the normal audio track recording mixed L and R channel sound). No special operation is required. Simply follow the basic recording procedure.

- To listen to the stereo soundtrack while recording, select "L+R" with Audio Monitor. ☞ p. 17.

NOTE:

- If the quality of stereo sound being received is poor, the ST indicator will go off, and the broadcast will be received in monaural with better quality.

To Record Bilingual Programmes

Bilingual programmes are automatically recorded in bilingual on the Hi-Fi audio track. The main soundtrack will be recorded on the normal audio track.

- To listen to the Hi-Fi soundtrack during recording, select "L" for Main, and "R" for Sub.
- To listen to the normal soundtrack, select "NORM" with the Hi-Fi/NORM/MIX button on the recorder.

Display Button

When you wish to check the time, date, or counter reading

1. Press DISPLAY to display the current clock time.
2. Press DISPLAY again to display the current date.
3. Press DISPLAY again to display the counter reading.

Colour System Selection

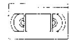
You can also record SECAM signals, or play back a MESECAM tape on this recorder.

- Hold down PAL/MESECAM for more than 2 seconds so that the MESECAM indicator appears on the display panel.
- When recording PAL signals or playing back a PAL tape, hold down PAL/MESECAM for more than 2 seconds again until the MESECAM indicator disappears.
- MESECAM is the designation for tapes with SECAM signals that have been recorded on MESECAM-capable PAL recorder.

S-VHS And VHS

Your video recorder can record in either S-VHS or VHS.

- To record in S-VHS, insert a cassette marked "S-VHS". The S-VHS indicator will light and the S-VHS recording mode is automatically selected.
- To record in VHS, insert a cassette marked "VHS". The VHS recording mode is automatically selected.
- You can also record in VHS on S-VHS cassettes. For this purpose, after inserting an S-VHS cassette, press the S-VHS button. The S-VHS indicator will go out.

Cassette	Type of recording	S-VHS indicator
S-VHS 	S-VHS	On
	VHS	Off
VHS 	VHS	Off

Preparation for ShowView Timer Programming

What is ShowView?
For timer-recording to take place, information such as the channel, date, start time and stop time of the programme you wish to record, must be programmed into the recorder's timer memory. The ShowView system condenses all this information into a simple ShowView code number.
Since the ShowView number contains information on the channel number, if you live in an area that uses channel numbers that are different from those listed in your TV directory, these "differences" must be input into the remote control. This process is called "Channel Mapping" (CH MAP).

CHECK THE GUIDE PROG. NUMBERS

Preparation
- Make sure you have set the clock. (☞ p. 11)
- Make sure you have set the tuner. (☞ p. 12)
- Get a TV schedule listing (magazine, newspaper, etc.) which carries ShowView code numbers.

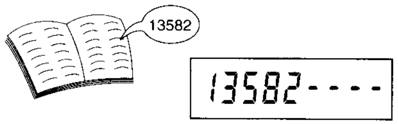
A Find out the channel position numbers your recorder tunes to when you use the TV PROG. –/+ buttons (the positions you stored on page 12) and write them into the list.

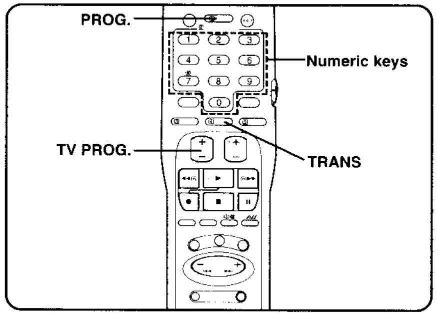
Example: 1, 2, 3, 4, 6, 8, 10, 12

B Look through the TV listing and find out the broadcast station name of each of the channels.
C Use the ShowView numbers to find out the GUIDE PROG. numbers for each of the stations.

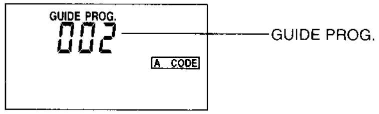
How to check:
1. **Press PROG.**

2. **Press the appropriate numeric keys to enter the ShowView number for a programme as it appears in your TV listing.**
   - Make sure the ShowView number is for a programme which has not been broadcast yet.





3. **Press TRANS.**



- The number is the GUIDE PROG. number for that station. Write it into the list.

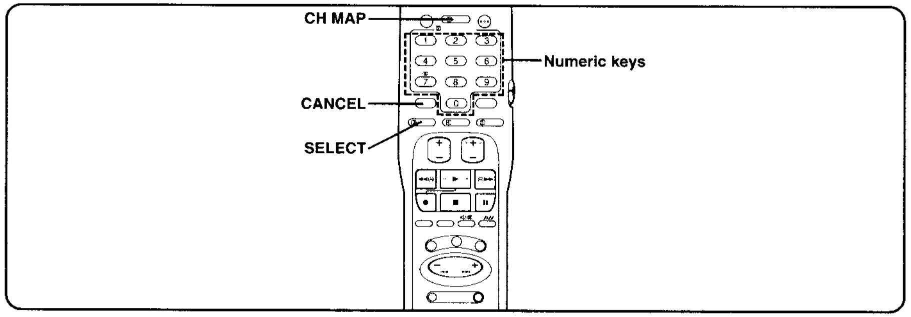
ATTENTION
- When you press the TRANS button in step 3, "Err(or)" may appear on the LCD. This may mean that you have entered a ShowView number for a programme which has already been broadcast.
- For GUIDE PROG. numbers, refer to the GUIDE PROG. number list enclosed with this instruction manual too or consult your JVC dealer.

4. **Press PROG.**
   - Repeat steps 1– 4 and check the GUIDE PROG. number for each of the channels your recorder receives.

A Channel on your recorder (TV PROG. number)	B Station name	C GUIDE PROG. number
(ex.) 1	ARD	1
2	ZDF	2
3	WDR	17

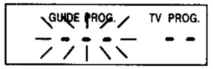
5. **Press PROG. until the display shows the clock time.**

D If the channel number that your recorder receives A and the GUIDE PROG. number C for that station do not match, it is necessary to change the remote control's Channel Map. (continued on next page)

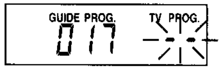


INPUT GUIDE PROG. NUMBERS INTO REMOTE

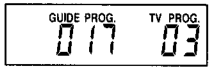
1. **Press CH MAP until the Channel Map display (below) appears in the remote control's LCD.**



2. **Press the appropriate numeric keys to enter the GUIDE PROG. number (C column in your list).**
Ex.: For "1", press
0, 0, 1.
For "10", press
0, 1, 0.



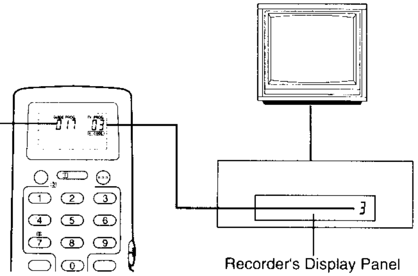
3. **Press the appropriate numeric keys to enter the channel number your recorder receives that station on. (TV PROG. number, A column in your list.)**
Ex.: For "3", press
0, 3.



4. **Press SELECT.**
- To input other channels into the Channel Map, repeat steps 2 – 4 above.

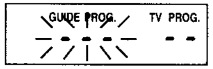
5. **Press CH MAP and display the clock time.**

Ex.: From column C in the list: The GUIDE PROG. number for WDR is "17".
From column A in the list: The TV PROG. number for WDR is "3".

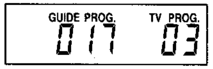


TO CHECK/CANCEL GUIDE PROG. NUMBERS IN THE REMOTE

1. Press CH MAP until the Channel Map display (below) appears in the remote control's LCD.



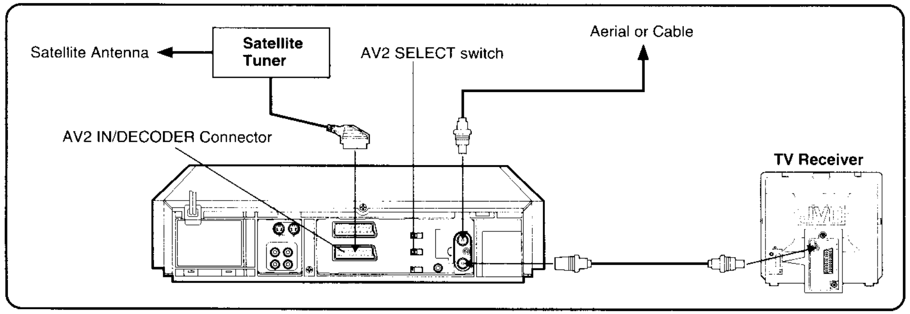
2. Press SELECT until the GUIDE PROG. number you wish to check or cancel is displayed.



To Cancel:
3. Press CANCEL.
4. Press CH MAP and display the clock time.

NOTES:
- When you move to another area, be sure to make changes in the Channel Map as necessary.
- When the remote control's batteries are replaced, the time or Guide Channel numbers you have set may be erased. If this happens, reset them again.

Preparation for ShowView Timer Programming (cont'd)



TO RECORD SATELLITE PROGRAMMES

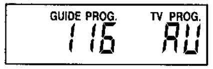
Timer programming is also possible for programmes received via satellite tuner.

Preparation

1. **Connect the satellite tuner as illustrated to the AV2 IN/DECODER connector.**
   - Make sure the AV2 SELECT switch is set to "AV2 IN".
2. **Press CH MAP until the Channel Map display (below) appears in the remote control's LCD.**

GUIDE PROG.
TV PROG.
- - -
- -

3. **Press the appropriate numeric keys to enter the GUIDE PROG. and TV PROG. numbers as follows:**
   - For GUIDE PROG., enter the GUIDE PROG. numbers of the satellite stations that are receivable through your satellite tuner.
   - For TV PROG., always enter "00". When "00" is entered, "AU" will appear in the LCD.



4. **Press SELECT.**
   - To input other satellite stations into the Channel Map, repeat steps 3 – 4 above.
5. **Press CH MAP and display the clock time.**

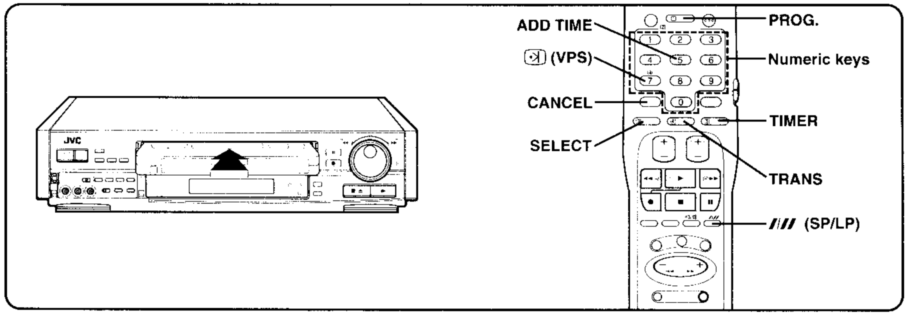
Operation

1. Turn on the satellite tuner and select the channel you wish to record.
2. Enter the ShowView number in the same way as shown in steps 1 – 7 of ShowView Timer Programming on p. 23.

NOTE:

- After selecting the programme you wish to record from your satellite tuner, set the system's timer. If your satellite tuner does not have a timer, leave it switched on.

Timer-Recording — ShowView Timer Programming —



The built-in ShowView programming system greatly simplifies timer programming because you won't have to enter all the data that is usually necessary (such as date, start and stop time, and channel).

TIMER PROGRAMMING IS NOT POSSIBLE UNLESS THE CLOCK HAS BEEN SET.

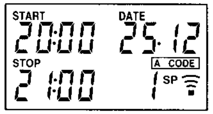
Preparation

- Make sure you have set the GUIDE PROG. numbers (☞ p. 20 – 22).
- Insert a cassette with the safety tab in place. The recorder power will come on automatically.
- Select the appropriate colour system by pressing the PAL/MESECAM button.(☞ p. 19)

1. **Press PROG.**

2. **Press the appropriate numeric keys to enter the ShowView number for the TV programme you wish to record.**
   - For ShowView numbers, refer to your newspaper or TV directory.

3. **Press SELECT.**
   - The LCD will show the data for the ShowView number you just entered.
   - If the entered ShowView number is not proper, "Err" appears on the LCD. Check the ShowView number again and re-enter it.
   - If you wish to take advantage of VPS recording (☞ p. 25), "▣" should be displayed on the LCD; if not, press ▣ (the numeric key "7") to make it appear.



WEEKLY program: After step 3, press numeric key "9".
DAILY (Mon. – Fri.) program: After step 3, press numeric key "8".

4. **Press SP/LP to select the tape speed.**
5. **Press TRANS with the remote control directed toward the recorder's Remote Sensor window.**
6. **Press PROG.**
   - The LCD returns to the clock display and the entered data will be automatically cleared.
   - If you need to set another program, repeat steps 1 – 6.
7. **Press TIMER.**
   - The recorder will enter the Timer mode and power will go off.

TO DELAY THE STOP TIME

After you press SELECT in step 3, press the ADD TIME button. Each time the ADD TIME button is pressed, the Stop time is delayed by 5 minutes (5 minutes of recording time is added). You can easily compensate for anticipated programme schedule delays this way.

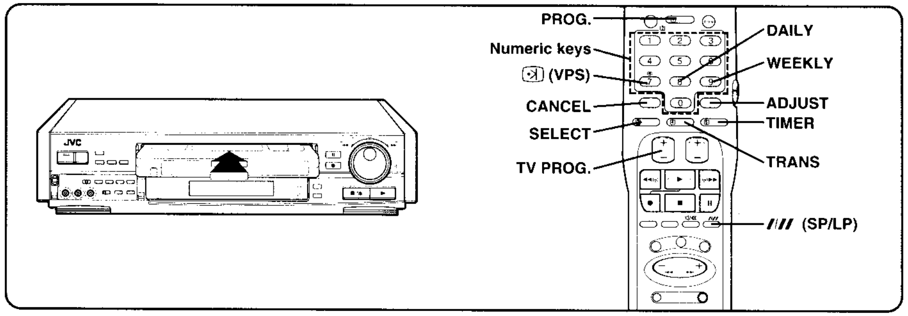
TO MAKE CORRECTIONS

- In step 2, press CANCEL to backspace and re-enter the correct ShowView number.
- After checking the data in step 3, press PROG. twice and re-enter the correct ShowView number.
- After checking the data in step 3, if you want to delay the stop time, etc. press SELECT to make the item you want to change blink, and input new data.
- Pressing PROG. clears the programmed data.

To check, cancel and replace programs, ☞ p. 24.

To use the recorder after setting to the Timer mode, ☞ p. 24.

Timer-Recording (cont'd) — LCD Timer Programming —



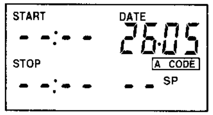
The LCD timer programming lets you input all necessary settings manually. It's helpful if the ShowView number for the TV programme you want isn't readily available.

Preparation

- Insert a cassette with the safety tab in place. The recorder power will come on automatically.
- Select the appropriate colour system by pressing the PAL/MESECAM button.(☞ p. 19)

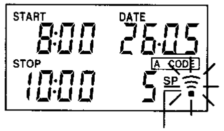
1. **Press PROG. twice.**
2. **Press numeric keys to input the date.**

   Ex.: For 26th May, press 2 6 0 5.



3. **Press numeric keys to input the start time, stop time and channel.**

   Ex.: For 8:00, press 0 8 0 0.



Transfer-ready mark

WEEKLY program: After you input the channel and the transfer-ready mark has appeared on the LCD, press numeric key "9".

DAILY (Mon. – Fri.) program: After you input the channel and the transfer-ready mark has appeared on the LCD, press numeric key "8".

- If you wish to take advantage of VPS recording (☞ p. 25), "⊡" should be displayed on the LCD; if not, press ⊡ (the numeric key "7") to make it appear.

4. **Press SP/LP to select the tape speed.**
5. **Press TRANS with the remote control directed to the recorder's Remote Sensor window.**
6. **Press PROG.**
   - The LCD returns to the clock display and the entered data will be automatically cleared.
7. **Press TIMER.**
   - The recorder will enter the Timer mode and power will go off.

TO MAKE CORRECTIONS

- During steps 2 and 3, press CANCEL to backspace and input new data.
- After setting the channel in step 3, press SELECT to make the item you want to change blink, and input new data.
- Pressing PROG. clears the programmed data.

TO CHECK, CANCEL AND REPLACE PROGRAMS

To check preset programs:

1. Press ADJUST until the program settings are displayed on the display panel.
   - Program 1 is displayed with the number blinking.
2. Press SELECT to review the program contents in succession.
3. To check another program, press ADJUST again.

To cancel the program:

4. Press CANCEL.
   - You can press CANCEL at any stage while the program is open.

To replace a program:

5. Use the SELECT and TV PROG. buttons to input new data.

TO USE THE RECORDER AFTER SETTING TO THE TIMER MODE

For safety, your recorder disables all other functions while in the Timer mode.

- Press TIMER to disengage the Timer mode.
- To re-engage the Timer mode, press TIMER.

NOTE:

- If you are using a satellite tuner and wish to timer-record satellite programmes, make sure to select the "AU 2" mode with the recorder's AV/S SELECT button (☞ p.27) before step 1 and input "0" for the channel number in step 3.

Other Functions

Error Indications

The following error indications may appear on the recorder when you press the TIMER button to engage the Timer Standby mode. Here's why, and what you should do.

- "TIMER" and "[OO]" on the display panel continue blinking.

WHY: There is no cassette in the recorder.

WHAT TO DO: Insert a cassette.

- The cassette is automatically ejected. "TIMER" and "[OO]" continue blinking.

WHY: The inserted cassette has its safety tab removed.

WHAT TO DO: Insert a cassette with its safety tab intact. Or cover the safety tab hole of the cassette with adhesive tape and re-insert it. ☞ p. 5.

- "TIMER" blinks for 10 seconds and the Timer Standby mode is cancelled.

WHY: There are no preset programs in memory, or they have all been incorrectly preset.

WHAT TO DO: Check the programmed data and re-program it as necessary. Press TIMER again.

Other Indications

- "TIMER" steady lit (with clock display).

WHY: The recorder is in the Timer Standby mode. This is the normal display you should see when you press the TIMER button.

- " ◌ " and "TIMER" steady lit.

WHY: Normal display while timer-recording is in progress.

- The cassette was ejected, with power off and "TIMER" and "[OO]" are blinking.

WHY: This means that the end of the tape was reached while timer-recording was in progress. Therefore, the preset program may not be recorded in its entirety.

- "0:00" blinking.

WHY: This means the clock must be set. It's displayed when time-keeping is terminated due to a power failure or because the recorder's power plug was pulled from the AC outlet.

WHAT TO DO: Set the clock. ☞ p. 11.

- If power was interrupted, it's also likely that all preset timer programming data has been erased. Please check and re-program as necessary.

- "-- -- -- -- --" is displayed for about 5 seconds when the TRANS button is pressed.

WHY: Data was not successfully transferred. The program may have been incorrectly preset, or the recorder's clock has not been set, or all the recorder's timer programs (1 – 8) are preset.

WHAT TO DO: Check the LCD program, and re-program as necessary. Transfer the correct data. Or cancel unnecessary programs, and transfer again.

VPS Recording

Now available from some TV stations, VPS (Video Program System) is a service designed to assure safe, accurate timer-recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over advertised times you preset in the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed.

TO USE VPS SERVICE

- During ShowView or LCD timer programming, make sure that "⊡" is displayed on the LCD before transferring the programme data to the recorder.
- If "⊡" is not displayed on the LCD, press the ⊡ button (the numeric key "7") to make it appear. Pressing the ⊡ button alternates the setting.

NOTES:

- When you enter programmes, set the start time (VPS time) exactly as advertised in the TV listing. A different time than advertised will result in no recording.
- VPS recording is not possible via external input.

Child Lock
(Locking The Recorder's Controls)

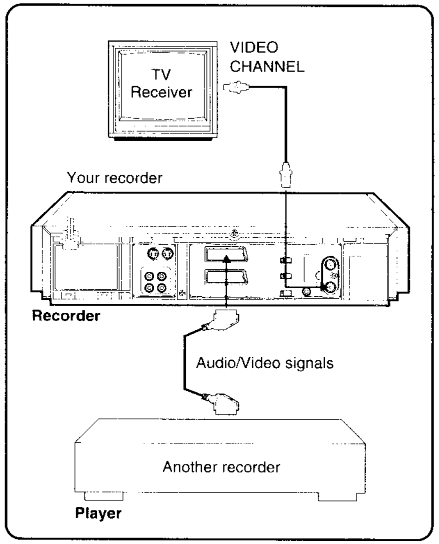
To avoid unwanted operation and prevent accidental recording...

1. Press the remote control's OPERATE button to turn the recorder's power off. Keep this button pressed for about 2 more seconds after the power LED indicator has gone off.
   - The Child Lock indicator (–) will appear on the display panel.
2. Child Lock is cancelled when you switch the recorder's power on with the remote's OPERATE button.
   - Pressing the TIMER button during timer-recording also cancels the Child Lock mode.

NOTES:

- While Child Lock is engaged, make sure you keep your remote control in a safe place inaccessible to children.
- Timer-recording is possible in the Child Lock mode. After timer-recording is done, Child Lock remains in effect.

Editing



Editing From Another Recorder

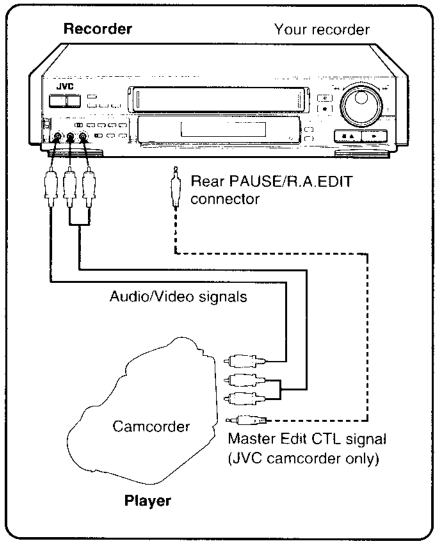
Preparation

- Connect another video recorder to the rear panel 21-pin AV1 or AV2 socket, or S IN and AUDIO IN connectors, or front panel VIDEO and AUDIO connectors.
- Engage the external input mode.
  - To select the input connectors and the corresponding external input mode, ☞ p. 27.
- Set the IMAGE CONTROL switch to EDIT.
- Press your recorder's PAL/MESECAM button to select the appropriate colour system. (☞ p. 19)

1. Load the source tape in the player, and the recording tape in your recorder.
2. Select the recording speed (SP or LP).
3. Put your recorder in the Record-Pause mode.
4. Play back the source tape to search for scene to be edited.
5. Press the recorder's Play button where you want to start editing.
6. Press the recorder's Pause button to stop editing.
7. Repeat steps 4 through 6 to continue editing.

NOTE:

- To minimize picture degradation while editing, set the IMAGE CONTROL switch to EDIT. After you finish editing, be sure to set the IMAGE CONTROL switch back to NORMAL.



Editing From A Camcorder

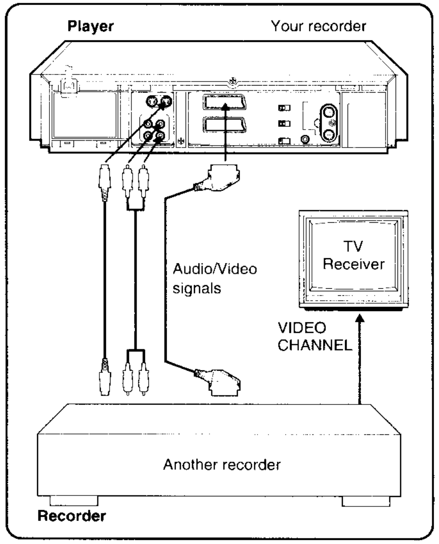
Preparation

- Connect the camcorder's AV OUT connector to the recorder's front panel VIDEO and AUDIO connectors.
- Connect the AV output cable's mini-plug to the PAUSE/R.A.EDIT connector of the recorder.
- Engage the external input mode.(☞ p. 27)
- Set the IMAGE CONTROL switch to EDIT.
- Press your recorder's PAL/MESECAM button to select the appropriate colour system. (☞ p. 19)

1. Follow steps 1 through 7 of "Editing From Another Recorder" on the left.

NOTES:

- If the camcorder is equipped with the Master Edit Control system, you can control the recorder using the camcorder's controls. See the camcorder's instruction manual for operating procedures.
- With this connection, you can also use the camcorder as a video camera for direct recording onto the recorder's tape. Put the recorder in Record-Pause and use the camcorder's start/stop trigger to start and pause recording. (For direct recording with a separate video camera, a camera adapter is necessary.)
- To minimize picture degradation while editing, set the IMAGE CONTROL switch to EDIT. After you finish editing, be sure to set the IMAGE CONTROL switch back to NORMAL.



Editing To Another Recorder

Preparation

- Connect your recorder's 21-pin AV1 IN/OUT socket or S OUT and AUDIO OUT connectors to the audio and video input connectors of the recording deck.
- Load the source tape in the player and the recording tape in the recorder.
- Set the IMAGE CONTROL switch to EDIT.
- Engage the recorder's AUX mode.
- Press your recorder's PAL/MESECAM button to select the appropriate colour system. (☞ p. 19)

1. Put the recorder in the Record-Pause mode.
2. Play back the source tape to search for a scene to be edited.
3. Press the recorder's Play button.
4. Press the recorder's Pause button to stop editing.
5. Repeat steps 2 through 4 to continue editing.

NOTE:

- To minimize picture degradation while editing, set the IMAGE CONTROL switch to EDIT. After you finish editing, be sure to set the IMAGE CONTROL switch back to NORMAL.

Advantages Of S-VHS Video Recorders

You can edit from VHS to S-VHS, S-VHS to VHS, or, needless to say, from S-VHS to S-VHS.

- From VHS to S-VHS: Record VHS playback signals in the S-VHS mode. Although the picture quality is inherently limited by that of the original, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to VHS: Because the picture quality of the source material is very high, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to S-VHS: All signals will be transferred without degradation.

How To Select The External Input Mode

To record external audio and video signals;

1. Press the remote control's numeric key "0".
2. Press the AV/S SELECT on the front of the recorder to select the appropriate external input mode.
   - Pressing AV/S SELECT rotates the input mode as follows:

When using rear panel input connectors:

AV/S SELECT

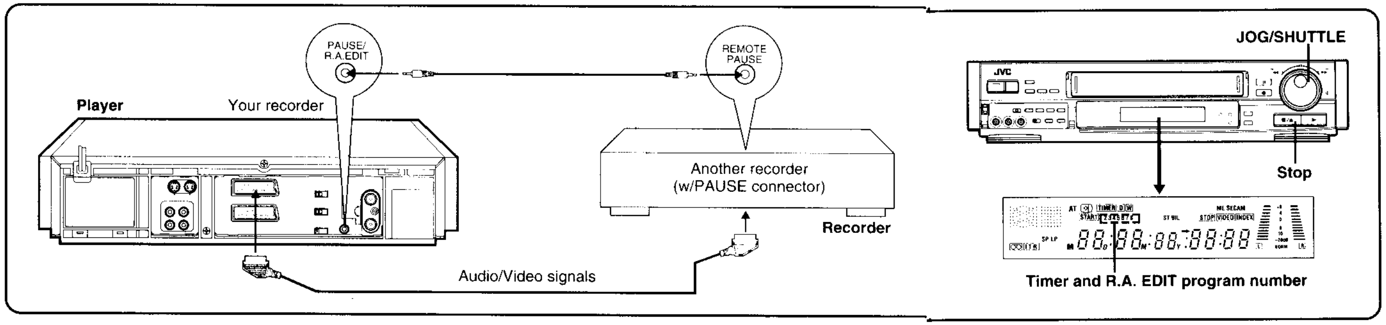
Connector	Mode (on display panel)
AV1 IN/OUT	AU 1
AV2 IN	AU 2
S IN and AUDIO IN	[S]

When using front panel input connectors:

Connector	Mode (on display panel)
V (Video), A (Audio) L and R	F-AU

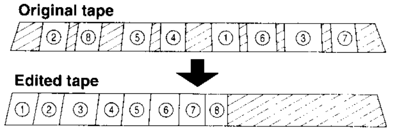
NOTES:

- To record input signals from the AV2 IN/DECODER connector, set the AV2 SELECT switch on the rear of the recorder to AV2 IN.
- Connections made to the front panel Video and Audio inputs automatically override the rear panel AUDIO/VIDEO input connection. If you wish to edit with another machine connected to the rear input connector, make sure that there is nothing connected to the front connectors.
- Use the L connector for monaural connection.



PREPARATION

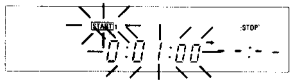
This function makes it easier to create edited videos when your recorder is used as the source player in combination with another video deck which is equipped with a PAUSE (i.e. REMOTE PAUSE) terminal. You can pre-program up to 8 scenes or "cuts" for automatic editing in the sequence you have specified.



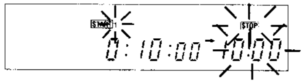
1. Connect your recorder's AV1 IN/OUT connector to the recording deck's AUDIO/VIDEO IN connectors.
2. Connect your recorder's PAUSE/R.A.EDIT connector to the recording deck's PAUSE connector.
   - If the recording deck does not have a PAUSE connector, connect to the R.A.EDIT connector.
3. Turn both units on.
4. Engage the recorder's AUX (iliary) mode.

OPERATION

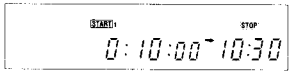
1. Insert a recorded cassette into your recorder, and insert a cassette (with safety tab intact) into the recording deck.
2. Play back the tape in your recorder.
3. Press the R.A.EDIT button.
   - The display panel will change to the R.A.EDIT mode.



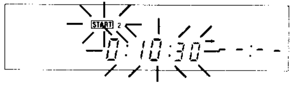
4. Use the JOG/SHUTTLE to search for the point where you want an edited scene to start, and press IN/OUT.
   - The cut-in point is registered in memory.



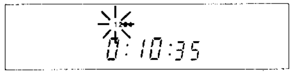
5. Use the JOG/SHUTTLE to search for the point where you want the scene to end, and press IN/OUT.
   - The cut-out point is registered in memory.



After 3 seconds.



6. Specify additional scenes by repeating steps 4 – 5.
7. Put the recording deck in the Record-Pause mode.
8. Press START.
   - The function begins automatic editing; all the specified scenes are copied to the recording deck in sequential order.



   - While a scene is being searched, the recording deck automatically enters the Record-Pause mode.
   - When Random Assemble Editing is finished, your recorder enters the Still mode, the recording deck enters the Record-Pause mode, and the cursor blinks at the next available scene number.
9. Press R.A.EDIT again.
10. Press Stop on both decks to end Random Assemble Editing.

To check, cancel and replace programs, ☞ p. 30.

Sound Shuttle

You can also monitor the sound when searching for scenes you want to edit in steps 4 – 5.

Since you can hear the soundtrack during selection, you can avoid abrupt or unnatural sounding scene-to-scene connections.

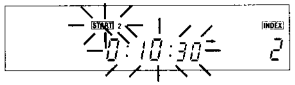
Using The Remote Control

You can also use the remote control's buttons for R.A.EDIT operation.

Make sure the remote control is set to the code corresponding to the player.

Using Index Search With Random Assemble Editing

In step 4, Index Search can also be used to locate your edit points. When used, "INDEX" and the index number will appear on the display panel. For Index Search ☞ p. 15.



- Using Index Search during R.A.Edit will result in a reduction in accuracy.

Memory Capacity

Random Assemble Editing utilizes the same memory space as the recorder's timer; so the number of sequences available to this function may not be 8, depending on how many programs are already stored in memory.

Example: When three programs are stored in memory (timer program number 1, 3 and 4).

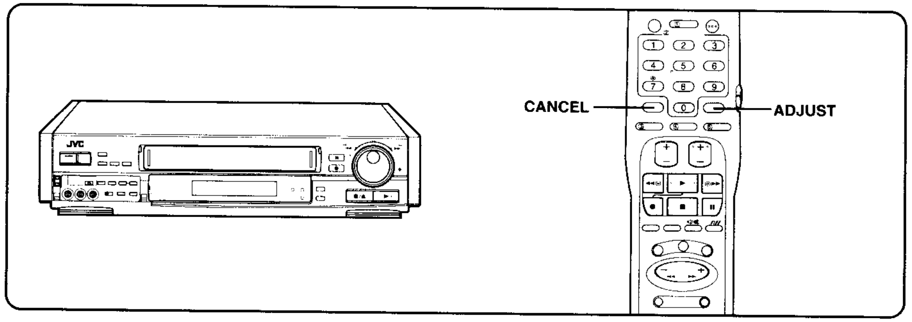
	Program number on display panel							
Timer program	1		3	4				
R.A.EDIT program		2			5	6	7	8

Only 5 programs can be programmed for R.A.EDIT. The program numbers 2, 5, 6, 7, 8 are available and R.A.EDIT will be performed in this order.

- If the display panel shows "-- -- -- -- --" when you press R.A.EDIT, the memory is already full of timer programs. If this happens, cancel some of the timer programs. (☞ p. 25.)

NOTES:

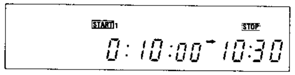
- When editing, there may be a discrepancy of about 2 seconds on the playback tape between the locations you chose as cut-in/out points and the locations the recorder recognizes as those points.
- For any scene, the cut-out point must have a counter reading that is at least 1 second after the cut-in point. A cut-out point with a counter reading less than or the same as the cut-in point will not be registered.
- Since the playback deck prerolls during Random Assemble Editing, there must be at least 15 seconds worth of recorded material prior to any cut-in point on the playback tape.
- If the search time for a cut-in point exceeds 5 minutes, the recording deck's Record-Pause mode will be cancelled and editing will not take place.



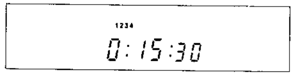
TO CHECK PROGRAMS

While in the R.A.EDIT mode:

1. Press ADJUST.
   - The display panel shows the program number and contents in chronological order as the button is pressed.



- If you press ADJUST again after the last program is displayed, the total running time of the edited program will appear.



- You can also check the current total running time during programming.

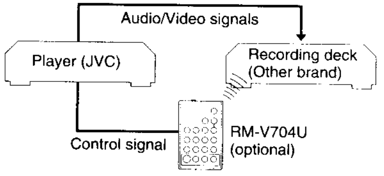
TO CANCEL AND REPLACE PROGRAMS

During steps 4 and 5 (☞ p. 28) or when checking programs:

1. Press CANCEL.
   - The displayed program will be cleared.
   - To cancel another program, press ADJUST until the program you want to cancel appears on the display panel, and then press CANCEL.
   - To replace a program, perform steps 4 and 5.

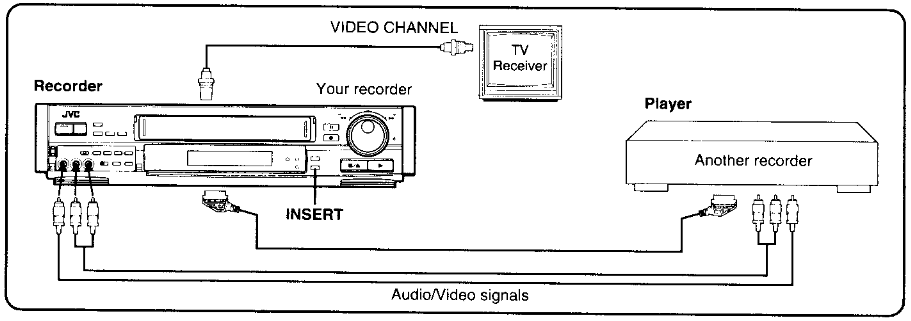
Optional RM-V704U Multi-Brand R.A.Edit Remote Control

By connecting this remote control to your recorder's R.A.EDIT Connector, Random Assemble Editing will become possible in conjunction with a second non-JVC deck. The RM-V704U is compatible with various European VCR brands — convenient especially if you already own a recorder other than JVC. For compatible systems and availability, please consult your JVC dealer.



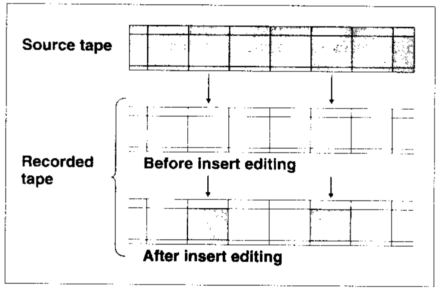
NOTE:

- Although the RM-V704U is designed to operate the recording deck, it may not work with some VCRs, or may have limited function capability.



Insert Editing

Insert editing replaces part of the recorded scene with new material. Both the picture and Hi-Fi audio soundtrack are replaced with new ones, while the normal audio soundtrack remains unchanged. If you wish to change the normal audio track as well, use the audio dubbing function simultaneously.



Preparation

- Connect another video recorder to the rear panel 21-pin AV1 or AV2 socket, or front panel AUDIO and VIDEO connectors.
- Engage the external input mode.
  - To select the input connectors and the corresponding external input mode, ☞ p. 27.

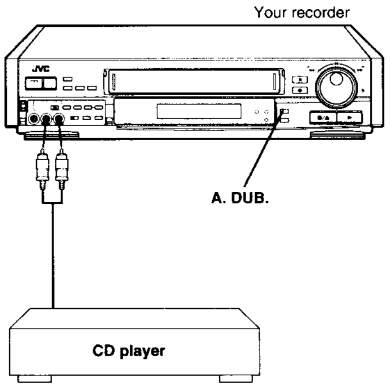
1. Load the source tape in the player, and the recording tape in your recorder.
2. Play back the recording tape and determine the edit-out point (the end of the segment to be replaced) using the JOG/SHUTTLE controls.
   - Releasing the JOG/SHUTTLE controls engages the Still mode.
3. Press C. RESET. (0:00:00)
4. Determine the edit-in point (the beginning of the segment to be replaced) using the JOG/SHUTTLE controls.
5. Press INSERT. (Insert-Pause mode)
   - For simultaneous replacement of the normal audio soundtrack, press A. DUB as well.
   - The TV screen changes from the still picture to the input signal you are going to record.
6. Play back the segment of the source tape to be inserted.
7. Press Play.
   - Insert editing will start. At counter 0:00:00, insert editing will stop automatically while the tape continues running in the Play mode.
   - If you wish to stop insert editing before the specified edit-out point, press C. RESET.

NOTES:

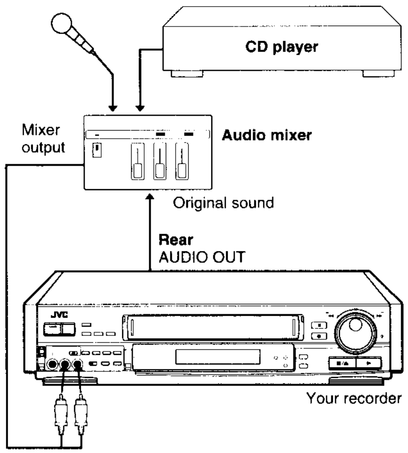
- Suitable leads can be obtained from your dealer.
- Insert editing is not possible with cassettes whose safety tab has been removed.
- In insert editing, the recording speed (SP/LP) is determined by the previous recording to be replaced. If the previous recording's speed changes within a single edit, the inserted picture will be distorted at the switching point.

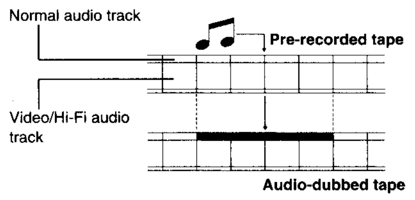
Audio Dubbing

A. Simple audio dubbing


Your recorder
JVC
A. DUB.
CD player

B. Audio Dubbing with audio mixing


CD player
Mixer output
Audio mixer
Original sound
Rear
AUDIO OUT
JVC
Your recorder


Normal audio track
Pre-recorded tape
Video/Hi-Fi audio track
Audio-dubbed tape

Audio dubbing replaces the normal audio sound of a previously recorded tape with a new soundtrack.

Preparation

Connect an audio component to the recorder's front panel AUDIO L, R connectors. (For monaural equipment, use the L connector.)

Operation

A. Simple audio dubbing

1. Select the recorder's external input mode by pressing numeric key "0". "F-AU" will appear instead of a preset number.
2. Start playback and engage the Still mode at the point from which you wish to start audio dubbing.
3. Press A. DUB.
4. Start playback of the audio source, and then press Play.
   - Audio dubbing will start.
5. Press Pause/Slow to stop audio dubbing temporarily.
6. Press Stop to stop audio dubbing.

B. Audio Dubbing with audio mixing

Perform the same procedure as described on the left, however, when the recorder is in the Audio Dubbing Pause mode in step 3, be sure to select the L+R position by pressing the Hi-Fi/NORM/MIX button.

This operation is not possible without an audio mixer nor with a monaural tape.

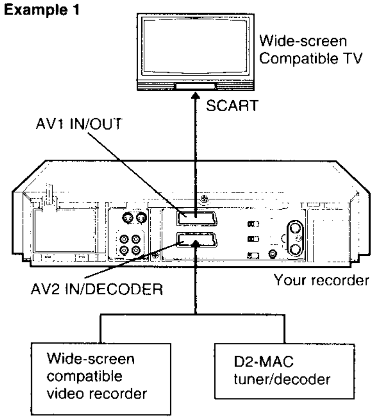
NOTES:

- When monitoring the sound during Audio Dubbing, the normal soundtrack will be automatically selected. If you wish to hear the mixed sound (Hi-Fi + normal soundtracks), press the Hi-Fi/NORM/MIX button to select the MIX mode. ☞ p. 16.
- Audio dubbing will stop automatically at the counter reading of "0:00:00", and the recorder will enter the Play mode. Check the counter before starting audio dubbing.
- Audio dubbing is also possible with input via the rear panel AV1 IN/OUT or AV2 IN. In these cases, select the appropriate input mode. ☞ p. 27
- Connections made to the front panel VIDEO and AUDIO input automatically override the rear panel AV input connection.
- Audio dubbing is not possible with cassettes whose safety tab has been removed.
- When playing back an audio-dubbed tape, press the Hi-Fi/NORM/MIX button to select the soundtrack you wish to hear. (☞ p. 16)

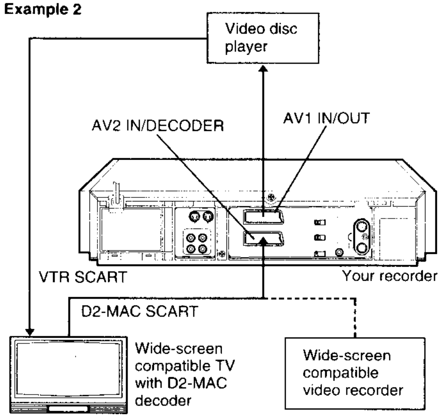
Information On Wide-Screen Viewing And Recording – D2-MAC –

CONNECTIONS

Example 1


Wide-screen Compatible TV
SCART
AV1 IN/OUT
AV2 IN/DECODER
Your recorder
Wide-screen compatible video recorder
D2-MAC tuner/decoder

Example 2


Video disc player
AV2 IN/DECODER
AV1 IN/OUT
VTR SCART
Your recorder
D2-MAC SCART
Wide-screen compatible TV with D2-MAC decoder
Wide-screen compatible video recorder

Wide-Screen Viewing And Recording

If your television is compatible with the 16:9 wide-screen format, please read this page to take full advantage of this recorder's Auto 16:9 function.

16:9 REC
AUTO
MANUAL

Set this switch to AUTO. Then your recorder will automatically record wide-screen programmes as "wide" and normal programmes as "normal".

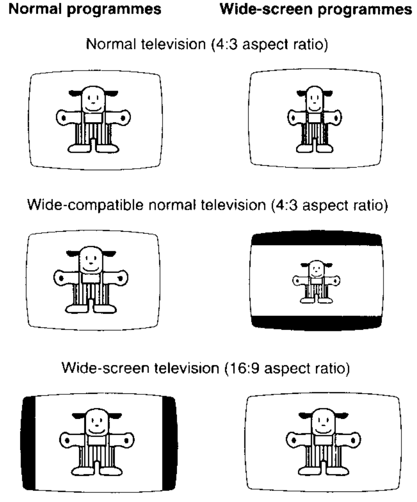
Whichever position of this switch is selected, your recorder will automatically:

- play back wide-screen programmes as "wide" and normal programmes as "normal".
- control the television (if equipped with Auto Aspect Ratio Switching function) so that both types of programmes are displayed with the right proportions.

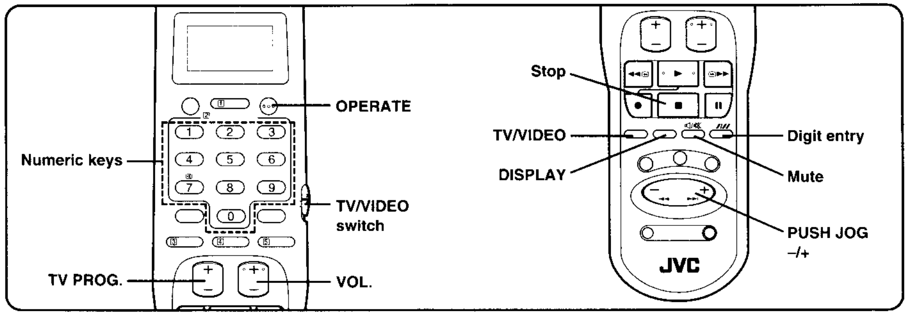
NOTES:

- When using the Auto 16:9 function, press TV/VIDEO to make the VIDEO indicator disappear from the display panel.
- When connecting a wide-screen compatible TV to the AV2 IN/DECODER connector, set the AV2 SELECT switch on the rear of the recorder to "AV2 IN".
- For the recorder to control the television, it must be connected to the TV via the AV1 IN/OUT connector.
- For the recorder to record in the correct mode automatically, the signal must be applied to either the AV1 IN/OUT or AV2 IN/DECODER connector.
- When recording wide-screen programmes via the S INPUT (S IN) or V INPUT connector, for example in tape-to-tape dubbing, set the 16:9 REC switch to MANUAL.
- When playing back wide-screen programmes via the S OUT connector, switch the television to the 16:9 mode manually.

What You See On The Screen


Normal programmes
Wide-screen programmes
Normal television (4:3 aspect ratio)
Wide-compatible normal television (4:3 aspect ratio)
Wide-screen television (16:9 aspect ratio)

Using The Remote Control For TV Operation



TV Code Setting

Your remote control can operate the basic functions of your TV set. In addition to JVC televisions, other manufacturers' televisions listed on the right can also be controlled by setting the remote control to "TV". If your television is a JVC (Code 01), you don't have to set the TV code in step 2.

1. Set the TV/VIDEO switch to "TV".
2. While holding down the OPERATE button, press the numeric keys corresponding to the code number for your TV's brand and then press Stop.
   - Press OPERATE to turn the TV power on.
   - Press TV/VIDEO to switch the TV between TV and VIDEO (or AV) mode.
   - Press TV PROG. to select the TV's channel.
   - Press VOL. to adjust the TV's sound volume.
   - Press Mute to mute the TV's sound.
3. To operate your recorder, set the TV/VIDEO switch back to "VIDEO".

NOTES:

- The TV PROG. button does not function with televisions using Code 02.
- The TV/VIDEO button does not function with televisions using Code 03.
- With some televisions, the OPERATE button functions only to turn the TV power off, and the TV/VIDEO button functions only to switch the TV to the VIDEO (AV) mode.
- Whenever you replace batteries in the remote control, it is necessary to re-set the TV code if your television is not a JVC TV.

IMPORTANT

Although the provided remote control unit is compatible with JVC television, as well as many other TV models, it may not work with your TV, or in some instances, may have limited function capability.

CODE	TV BRAND NAME
01	JVC
02	BRANDT, NORDMENDE, SABA, TELEAVIA, TELEFUNKEN, THOMSON
03	FERGUSON
04	PHILIPS
05	BLAUPUNKT, GRUNDIG
06	SONY
07	PANASONIC
08	GRAETZ, ITT, LUXOR, SALORA, SELECO
09	MIVAR

To Control Your Television With Additional Buttons

The numeric keys can also be used to select the TV's channel by setting the remote control to the TV mode.

1. Set the TV/VIDEO switch to "TV".
2. Use the numeric keys and the Digit entry button or the PUSH JOG button or DISPLAY button to select the TV's channel.
   - With televisions under Code 01, 03, 04, 06 or 07 the Digit entry button corresponds to the 1-digit/2-digit entry switching button (often labelled -/--) of your TV's remote control.
   - With televisions under Code 01, 08 or 09, the PUSH JOG – button corresponds to the 10 + button, and the PUSH JOG + button, to the 20 + button of your TV's remote control.
   - With televisions using Code 09 the DISPLAY button corresponds to the 30 + button.

NOTE:

The way these buttons are used is determined by your TV. Use these buttons as instructed for your TV's remote control.

Precautions

Please follow these safety precautions. Not doing so may result in damage to the recorder, remote control, or video cassette.

- **Avoid extreme heat and direct sunlight.**
- **Avoid extreme cold.**
- **Avoid extreme humidity.**
- **Avoid dust.**
- **Avoid places subject to vibrations.**
- **Avoid strong magnetic fields.**
- **Do not block the recorder's ventilation openings.**
- **Do not place anything heavy on the recorder or remote control.**
- **Do not place anything which might spill on top of the recorder or remote control.**
- **Do not place the recorder on cushions, pillows, or thick carpeting.**
- **Use the recorder in a stable, horizontal position only.**

Beware of moisture condensation

Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions — just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the recorder's power turned on for a few hours to let the moisture dry.

When transporting

- Be sure to remove cassette from recorder before packing.
- Avoid violent shocks to the recorder during packing and transport.

Place cassettes in cassette cases and store vertically.

Specifications

GENERAL

Power requirement : AC 220 – 240 V~, 50/60 Hz
Power consumption : 24 W
Temperature
Operating : 5°C to 40°C
Storage : –20°C to 60°C
Dimensions (WxHxD) : 426 x 94 x 341 mm
Weight : 4.5 kg
Format : S-VHS/VHS PAL standard with Hi-Fi audio
Maximum recording time (SP) : 240 min. with E-240 video cassette
(LP) : 480 min. with E-240 video cassette

VIDEO/AUDIO

Signal system : PAL-type colour signal and CCIR monochrome signal, 625 lines/50 fields
Recording/Playback system : DA-4 (Double Azimuth) head helical scan system
Signal-to-noise ratio : 45 dB
Horizontal resolution : 250 lines (VHS)
400 lines (S-VHS)
Frequency range : 70 Hz to 10,000 Hz (Normal audio)
20 Hz to 20,000 Hz (Hi-Fi audio)
Input/Output : 21-pin scart connectors (IN/OUT x 1, IN/DECODER x 1)
RCA connectors (VIDEO IN x 1, AUDIO IN x 2, AUDIO OUT x 1)
S connectors (IN x 1, OUT x 1)

TUNER/TIMER

TV channel storage capacity : 80 positions (+AUX position "AU")
Channel coverage : VHF 47 – 89/104 – 300/ 302 – 470 MHz
UHF 470 – 862 MHz
Aerial output : UHF channel 36 (Adjustable 32 – 40)
Memory backup time : Approx. 3 min.

ACCESSORIES

Provided accessories : Aerial cable,
Infrared remote control unit,
"R03" battery x 2,
Audio cable,
S-Video cable

Design and specifications subject to change without notice. Specifications shown are for SP mode unless otherwise specified.

In Case Of Difficulty

POWER AND TAPE TRANSPORT PROBLEMS

Symptoms	Check points
No power is applied to the recorder.	■ Is the power cord disconnected? — Connect it.
Clock is functioning properly, but the recorder cannot be powered.	■ Is "TIMER" displayed on the display panel? — Press the TIMER button to extinguish the display.
Tape stops during rewind or fast-forward.	■ Is the C. MEMORY button pressed? — Press again to make "M" disappear from the display panel.

RECORDING PROBLEMS

Symptoms	Check points
Recording cannot be started.	■ Is a cassette loaded? ■ Is the safety tab on the cassette removed? — Reseal the slot with adhesive tape.
TV broadcasts cannot be recorded.	■ Has "external input" been selected? — Set to the desired channel.
Tape-to-tape editing or camera recording is not possible.	■ Is the camcorder or another video recorder correctly connected? ■ Are all necessary power switches turned ON? ■ Has "external input" been selected? — Set to the correct input mode. (☞ p. 27)
Timer recording is not possible.	■ Have you set the clock correctly and programmed the timer correctly? — Check once again. ■ Is "TIMER" displayed on the display panel? — If not, press the TIMER button to display "TIMER".
ShowView timer recording is not possible, or cannot be done correctly.	■ Have you set GUIDE PROG. numbers into the remote control correctly? (☞ p. 20, 21) ■ Did you enter the correct ShowView number for that programme? (☞ p. 23)
Satellite programmes are not correctly timer-recorded.	■ Have you connected the satellite tuner to the recorder's AV2 IN/DECODER connector? — If not, make this connection. (☞ p. 22) ■ Have you selected "AU 2" as the channel? — Make sure "AU 2" is selected as the recording channel.(☞ p. 24)

PLAYBACK PROBLEMS

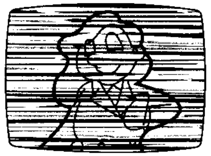
Symptoms	Check points
Playback picture does not appear while the tape is running.	■ If you are using RF OUT connection, is the TV receiver's channel selector set to the correct video channel? — Set it to the RF converter channel (UHF 36). (☞ p. 8) ■ If you are using AV connection, is the TV receiver set to the AV mode? — Set it to the AV mode.
Noise occurs during visual search.	■ This is normal.
Noise occurs during normal or slow-motion playback.	■ Is the automatic tracking mode engaged? — Try manual tracking. (☞ p. 14)
Playback picture is blurred or interrupted while TV broadcasts are clear.	■ Video heads may be dirty. — Head cleaning is necessary. Consult your JVC dealer. (☞ p. 37)
Playback picture has a loss of colour.	■ Have you selected the appropriate colour system for the tape being played back ? — Select the correct colour system by pressing the PAL/MESECAM button. (☞ p. 19) ■ Was the PAL/MESECAM button set to the wrong setting during recording ? — Once recorded, the signal cannot be corrected. Be sure to choose the correct setting before recording.
Breaks are noticeable in Hi-Fi audio reproduction.	■ Is the automatic tracking mode engaged? — Try manual tracking (☞ p. 14)

OTHERS

Symptoms	Check points
Whistling or howling is heard from TV during camera recording.	■ Move camcorder or camera's microphone away from TV or reduce TV sound volume.
Channel cannot be switched.	■ Is recording in progress? — Press the Pause/Slow button, change the channel, and press the Play button.
Remote control does not function.	■ Are the batteries discharged? — Replace with new ones. ■ Is the TV/VIDEO code switch set to the appropriate position? — Check once again. ■ Check the A/B code changeover mechanism. The code should change when you press the A/B button on the remote control for more than 2 seconds.

ATTENTION:
This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the power off and unplug the power cord. Then plug it in again and switch on. Take out the cassette. After checking the cassette, operate the unit as usual.

Special Note on Head Cleaning

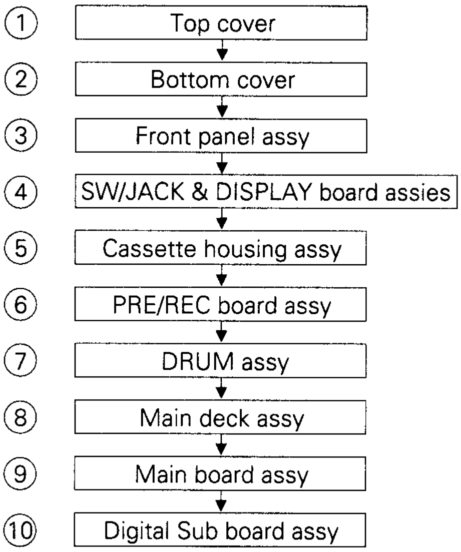


- If the picture playback becomes blurred, it does not mean that the recorded program has been erased.
- Dirt accumulated on the video heads after long periods of use causes such troubles. In this case, head cleaning requiring highly technical care is necessary.
- For head cleaning, consult the nearest JVC dealer.

SECTION 1
DISASSEMBLY

1.1 DISASSEMBLY FLOW CHART

This flowchart lists shows the disassembly steps for the cabinet parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend,route and dress the flat cables as they were originally.



1.2 HOW TO READ THE DISASSEMBLY AND ASSEMBLY

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	4(S1)	
②	BOTTOM COVER	D2	(S2), 7(L1)	
③	FRONT PANEL ASSY	D3	7(L2),*JOG/SHUTTLE	<NOTE 1>
④	SW/JACK & DISPLAY BOARD ASSIES	D4	12(L3),*CN1	<NOTE 2>
⑤	CASSETTE HOUSING ASSY	D5	4(S3) EARTH PLATE	<NOTE 3>
⑥	PRE/REC BOARD ASSY	D6	2(S4),*CN1 *CN201,*CN202 SHIELD CASE	

(1) (2) (3) (4) (5)

(1) Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) NO. of parts Figures.
(2) Part name to be removed or installed.
(3) Fig.No. showing procedure or part location
(4) Indentification of part to be removed,unhooked,unlocked, released,unpluged,unclamped or unsoldered. P = Spring, W = Washer, S = Screw, L = Locking tab, * = Unhook,unlock, release,unplug or unsolder.
(5) Adjustment information for installation

1.3 DISASSEMBLY/ASSEMBLY METHOD

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	4(S1),(S2) SIDE PANEL (L),(R)	
②	BOTTOM COVER	D2	(S3), 7(L1),2(P1)	
③	FRONT PANEL ASSY	D3	7(L2),*JOG/SHUTTLE	<NOTE1>
④	SW/JACK & DISPLAY BOARD ASSIES	D4	13(L3),*CN1, *CN4	<NOTE2>
⑤	CASSETTE HOUSING ASSY	D5	2(S4) ,2(S5) EARTH PLATE	<NOTE3>
⑥	PRE/REC BOARD ASSY	D6	2(S6),*CN1 *CN201,*CN103 SHIELD CASE	
⑦	DRUM ASSY	D7	3(S7),WR1,4(L4), INERTIA PLATE	<NOTE4>
⑧	MAIN DECK ASSY	D8	2(S8),WR2 WR3,2(L5),*CN603	<NOTE5>
⑨	MAIN BOARD ASSY	D9	2(S9),(L6)	
⑩	DIGITAL SUB BOARD ASSY	D9	2(S10),(L7)	

<NOTE1>
When reattaching the front panel assy, make sure that the door opener (a) of the cassette housing assy is lowered in position prior to the reinstallation.

<NOTE2>
When plugging the connector in, check that the flat wire is inserted properly and fully.

<NOTE3>
When reattaching the cassette housing assy, pay careful attention to the switch lever not to make it touch the REC switch knob of the REC SAFETY board assy from the upside.
(If the REC switch knob of the REC SAFETY board assy is damaged, cassette loading is impossible.)

<NOTE4>
When plugging the connector in, check that the flat wire is inserted properly and fully.

<NOTE5>
- When removing the Main deck assy only, unhook the two spacers connecting it with the Main board assy with pliers from the back side of the Main board assy first, and then remove the Main deck assy.
- When reattaching the Main deck assy to the Main board assy, make sure to set the spacers into the retaining slots respectively.

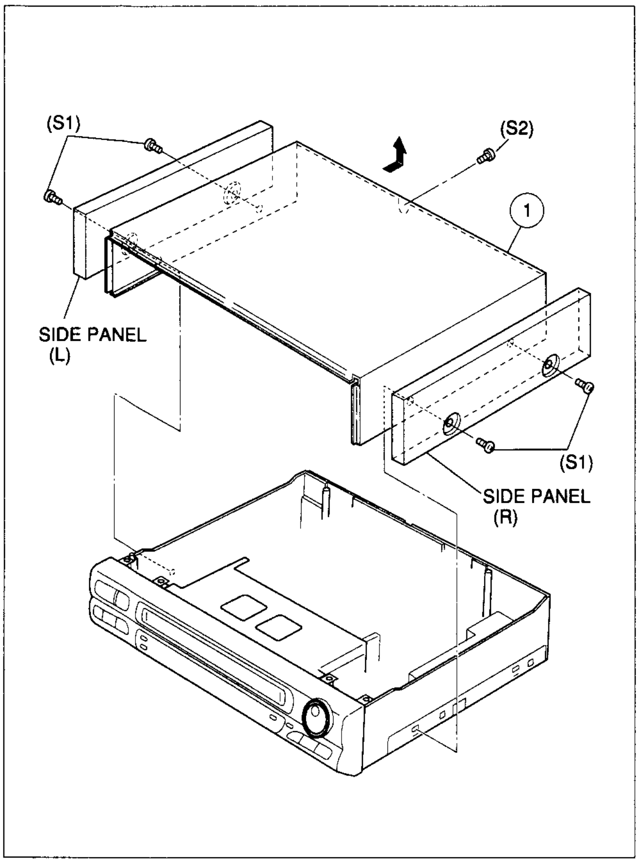

(S1)
(S2)
1
SIDE PANEL
(L)
(S1)
SIDE PANEL
(R)

Fig. D1

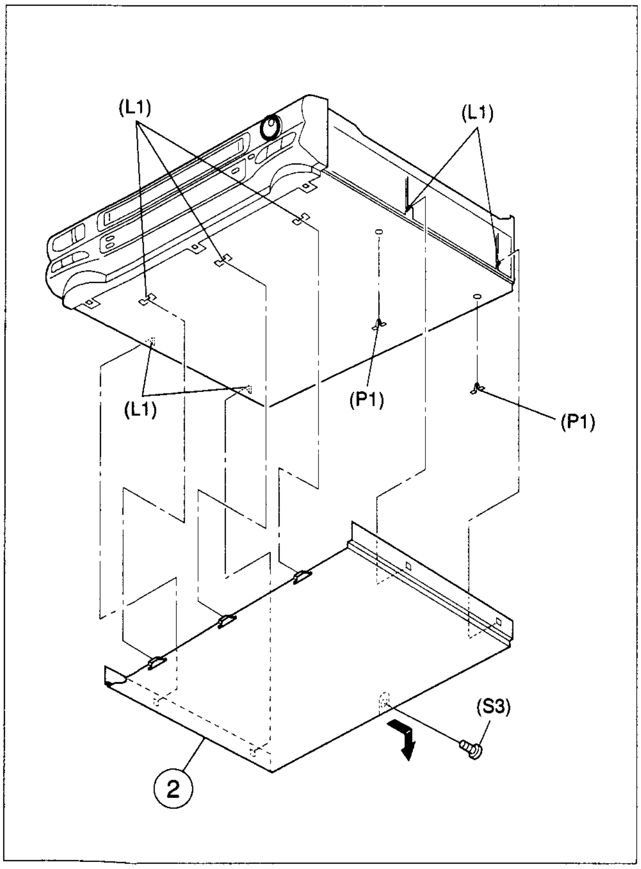

(L1)
(L1)
(L1)
(P1)
(P1)
(S3)
2

Fig. D2

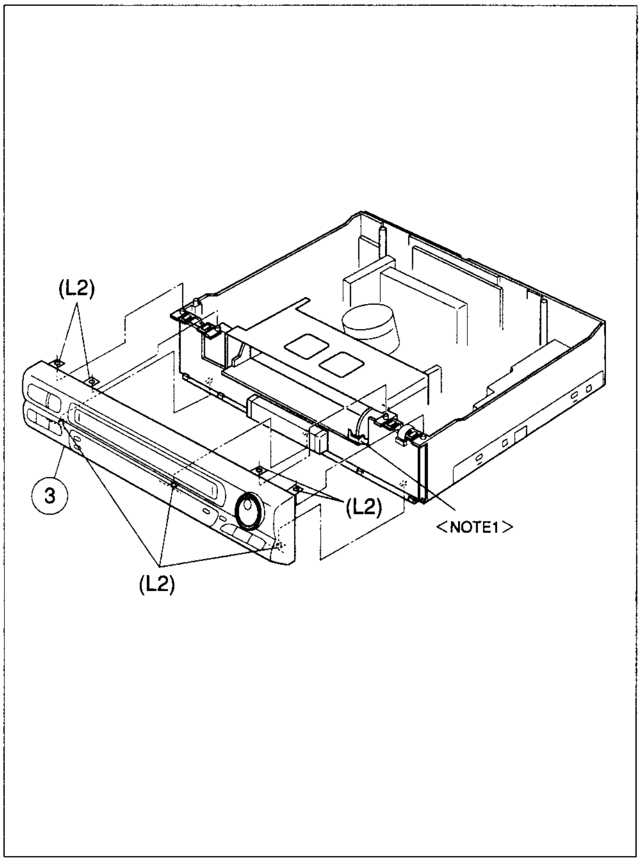


Fig. D3

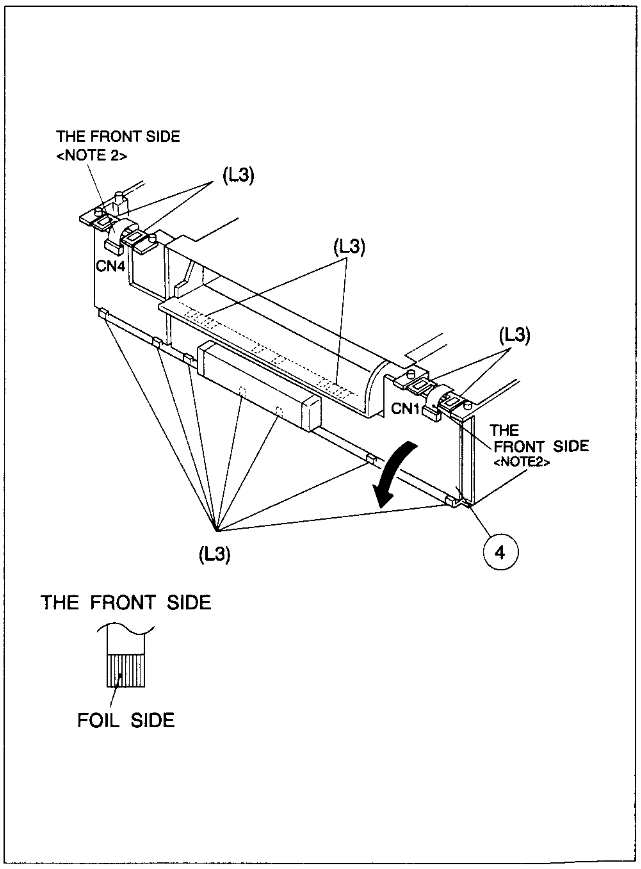

THE FRONT SIDE
<NOTE 2>
(L3)
CN4
(L3)
(L3)
CN1
THE
FRONT SIDE
<NOTE2>
(L3)
4
THE FRONT SIDE
FOIL SIDE

Fig. D4

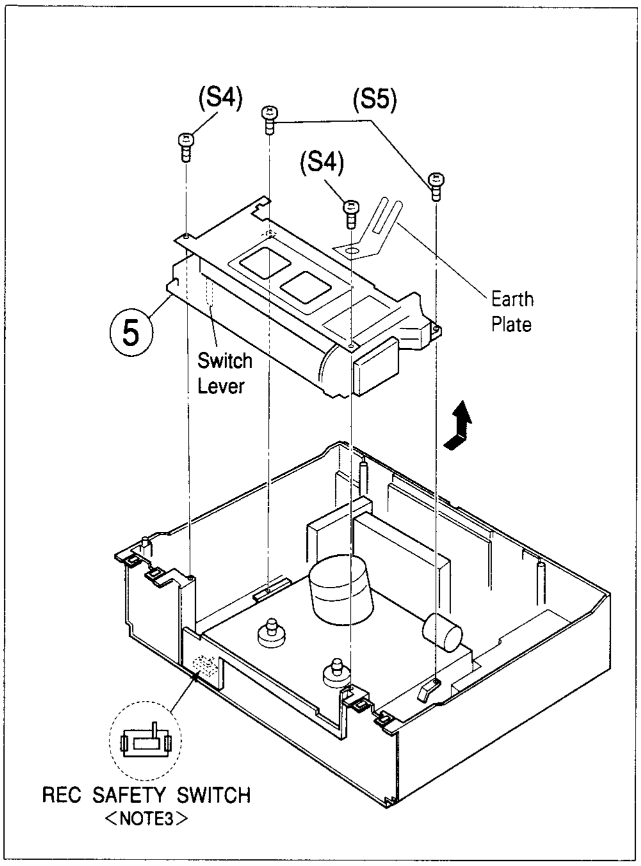

(S4)
(S5)
(S4)
Earth Plate
5
Switch Lever
REC SAFETY SWITCH
<NOTE3>

Fig. D5

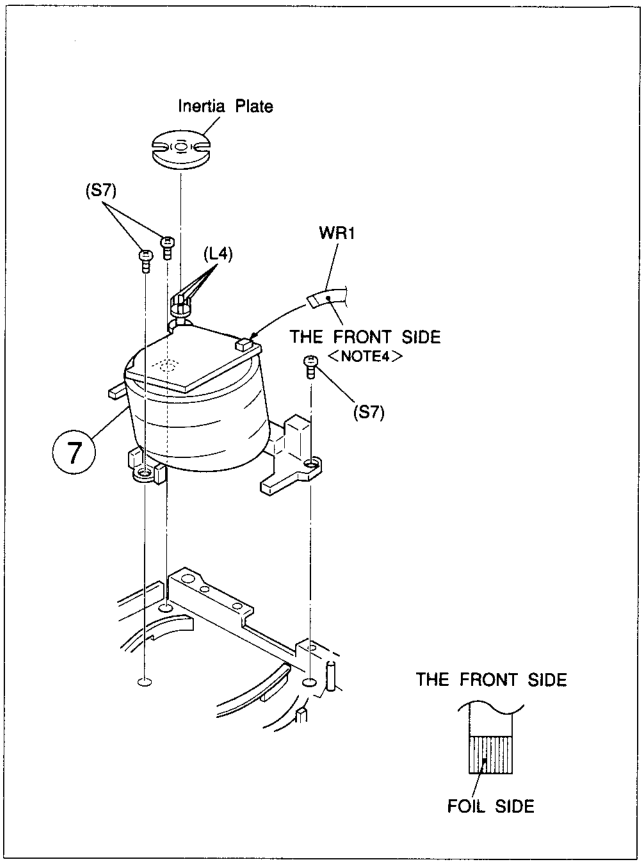

Inertia Plate
(S7)
WR1
(L4)
THE FRONT SIDE
<NOTE4>
(S7)
7
THE FRONT SIDE
FOIL SIDE

Fig. D7

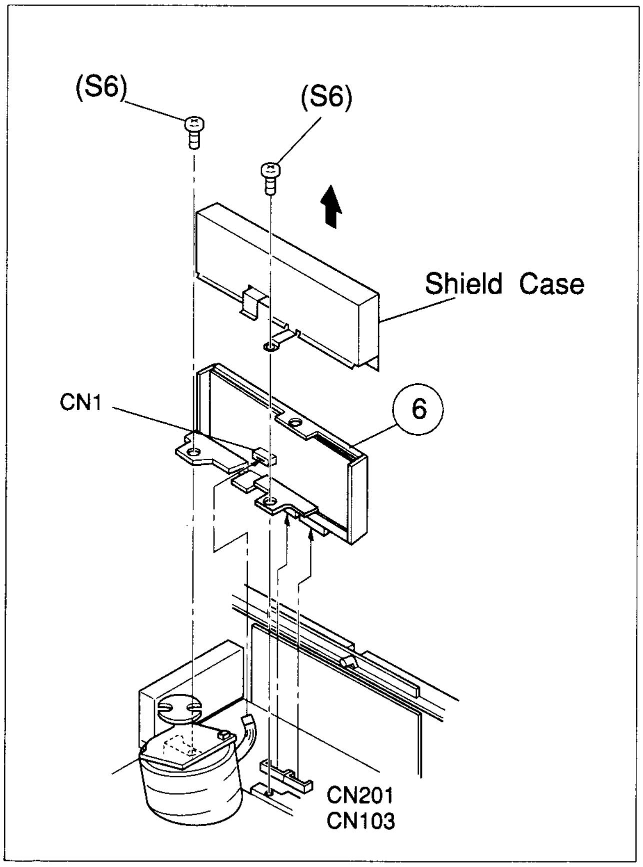

(S6)
(S6)
Shield Case
CN1
6
CN201
CN103

Fig. D6

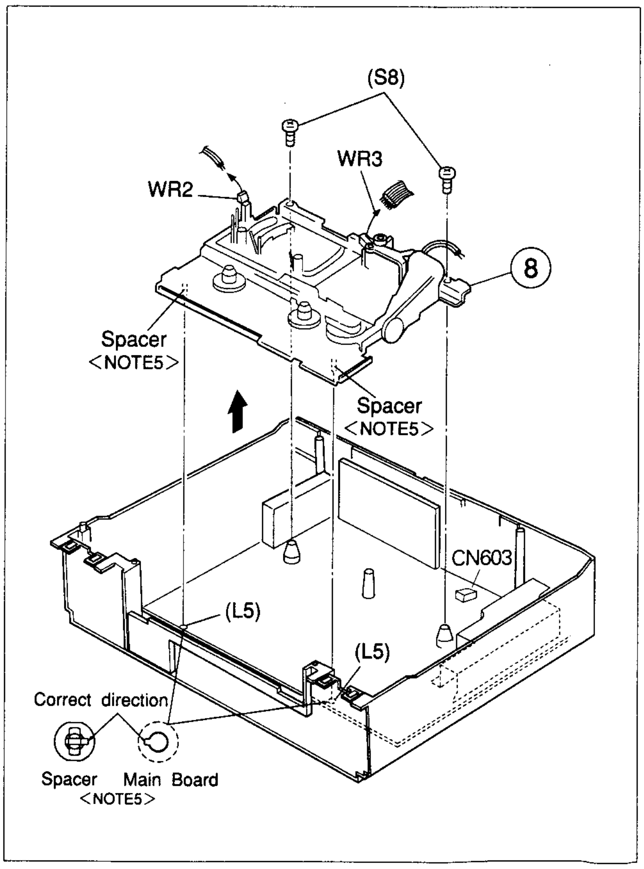

(S8)
WR3
WR2
8
Spacer
<NOTE5>
Spacer
<NOTE5>
CN603
(L5)
(L5)
Correct direction
Spacer
Main Board
<NOTE5>

Fig. D8

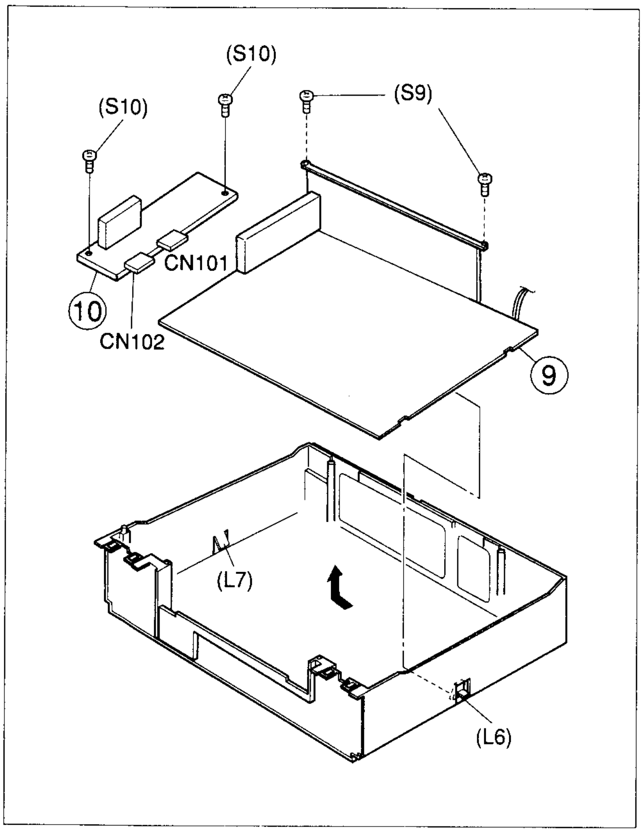

(S10)
(S10)
(S9)
CN101
⑩
CN102
⑨
(L7)
(L6)

Fig. D9

1.4 CASSETTE HOUSING INSTALLATION

NOTE: *Observe the mechanical phase and position (see figure) when installing the cassette housing assembly. If these are incorrect, the system will not operate properly even when tape is inserted.*

1. Check that the hole of the control cam are aligned to the deck hole. If necessary, turn the mode motor belt by hand to adjust the position.

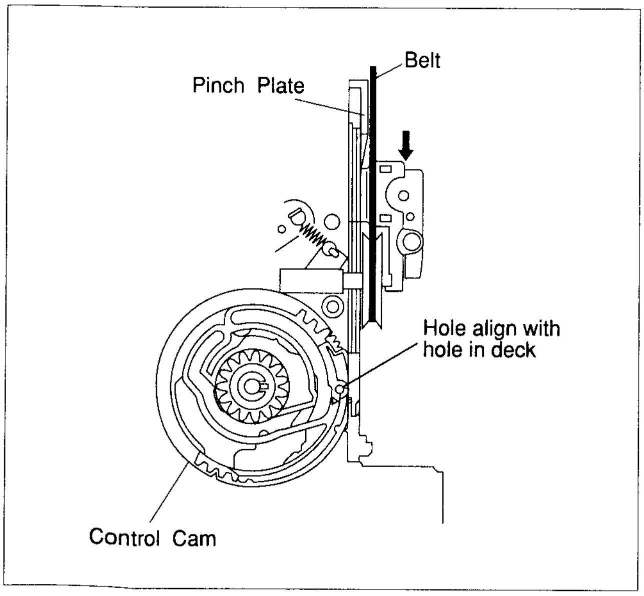

Belt
Pinch Plate
Hole align with hole in deck
Control Cam

Fig. 1-4-1

1.5 SERVICE POSITION

1.5.1 How to take out the Mechanism and Main board assemblies.

(1) Remove the Top cover, Front panel assy and CN1 and CN4 of the DISPLAY board assy.

(2) Take out 4 screws Ⓐ 2 screws Ⓑ, 1 screw Ⓒ and 2 screws Ⓓ as shown in Fig.1-5-1.

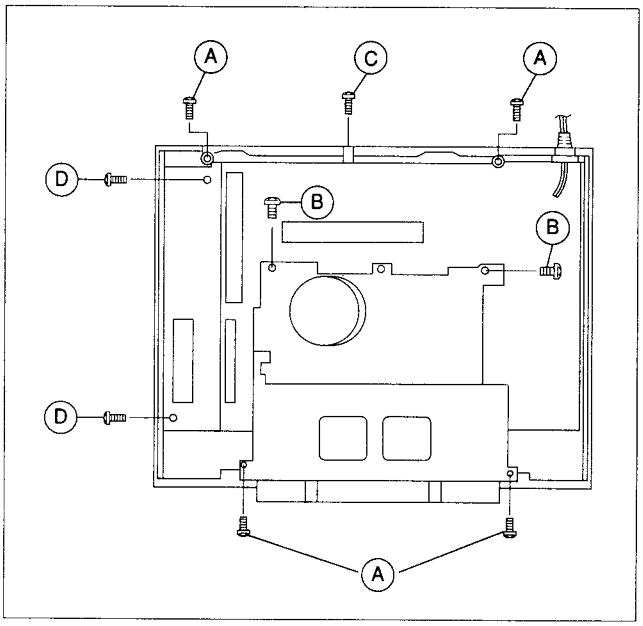


Fig. 1-5-1

(3) Disengage 2 claws ⓐ from the chassis.

(4) Remove the Mechanism assy (including Cassette housing) and Main board assy out of the chassis as shown in Fig. 1-5-2.

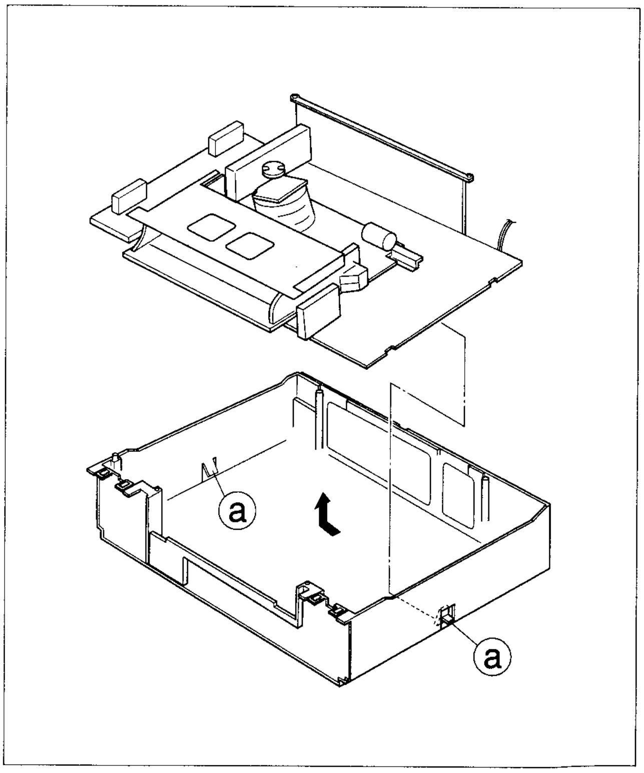


Fig. 1-5-2

(5) Turn over the Mechanism assy and Main board assy then connect CN1 of the DISPLAY board assy.

(6) Carry out checks & repairs as necessary as shown in Fig.1-5-3.

Note: *When input the AUDIO/VIDEO signal from connector, connect CN4 of the SW/JACK board assy.*

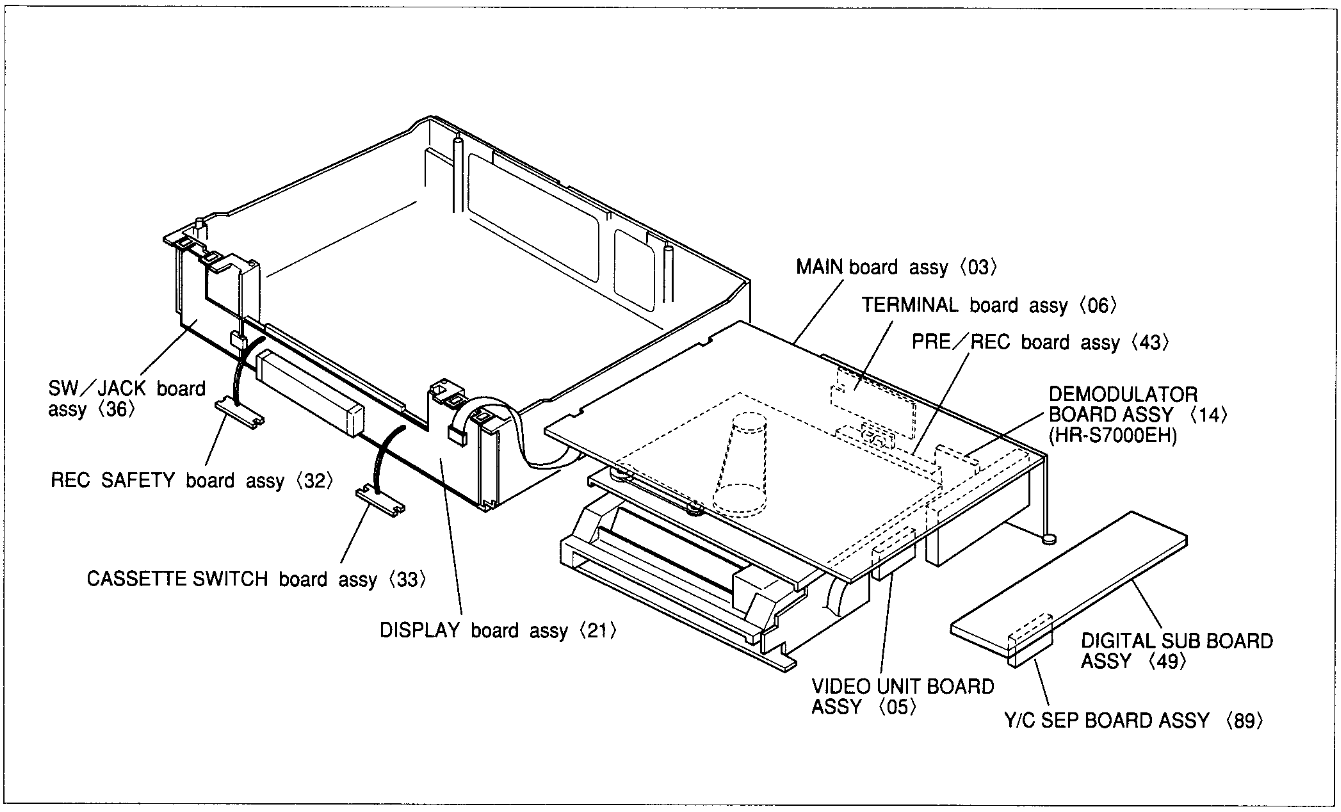

MAIN board assy ⟨03⟩
TERMINAL board assy ⟨06⟩
PRE/REC board assy ⟨43⟩
DEMODULATOR BOARD ASSY ⟨14⟩ (HR-S7000EH)
SW/JACK board assy ⟨36⟩
REC SAFETY board assy ⟨32⟩
CASSETTE SWITCH board assy ⟨33⟩
DISPLAY board assy ⟨21⟩
DIGITAL SUB BOARD ASSY ⟨49⟩
VIDEO UNIT BOARD ASSY ⟨05⟩
Y/C SEP BOARD ASSY ⟨89⟩

Fig. 1-5-3

1.5.2 Cautions on cassette loading when mechanism is in service position

The REC SAFETY board assembly of this set serves both for detecting the safety tab (erasure prevention tab) of a cassette and detecting a cassette loaded. Therefore, cassette loading in the condition that the mechanism is disassembled from the set needs manual operation of the switches of the REC SAFETY board assembly and the CASSETTE SWITCH board assembly.

1.5.3 Cassette loading and ejecting procedures when mechanism is in service position

(1) Insert a cassette tape halfway into the cassette housing assembly.

(2) Press the switch of the REC SAFETY board assembly to turn on.

(3) When the cassette loading begins and the cassette goes down to the bottom, immediately press the switch of the REC SAFETY board assembly to turn off and hold the status that the switch of the CASSETTE SWITCH board assembly is turned on. (Fix the switch with adhesive tape or put a screwdriver, etc. on it to leave the switch in the ON status.)

(4) In this status, desired operations (recording, playback, fast forward, rewind, etc.) can be performed.

Note: *When the mechanism is in the service position, the safety tab of cassette tape is not detected and recording on cassette tapes without safety tab is possible. Therefore, carefully choose a cassette tape for operation in this mode so as to avoid using cassette tapes of important recording.*

(5) For ejecting the cassette in this status, do it in the reverse order of cassette loading mentioned above.

Note: *If the manual operation REC SAFETY switch timing is incorrect, the cassette may be completely or partially ejected, and the cassette is often ejected incompletely. In such a case, it is possible to take out the cassette by hand.*

If it is desired to load a cassette again after the cassette is ejected in the above procedure, make sure to set the tray of the cassette housing assembly in the frontmost position prior to loading the cassette once again.

1.5.4 Opening on the chassis.

The chassis assy has openings for easy access to the checkpoints and connector pins as shown in Fig.1-5-4.

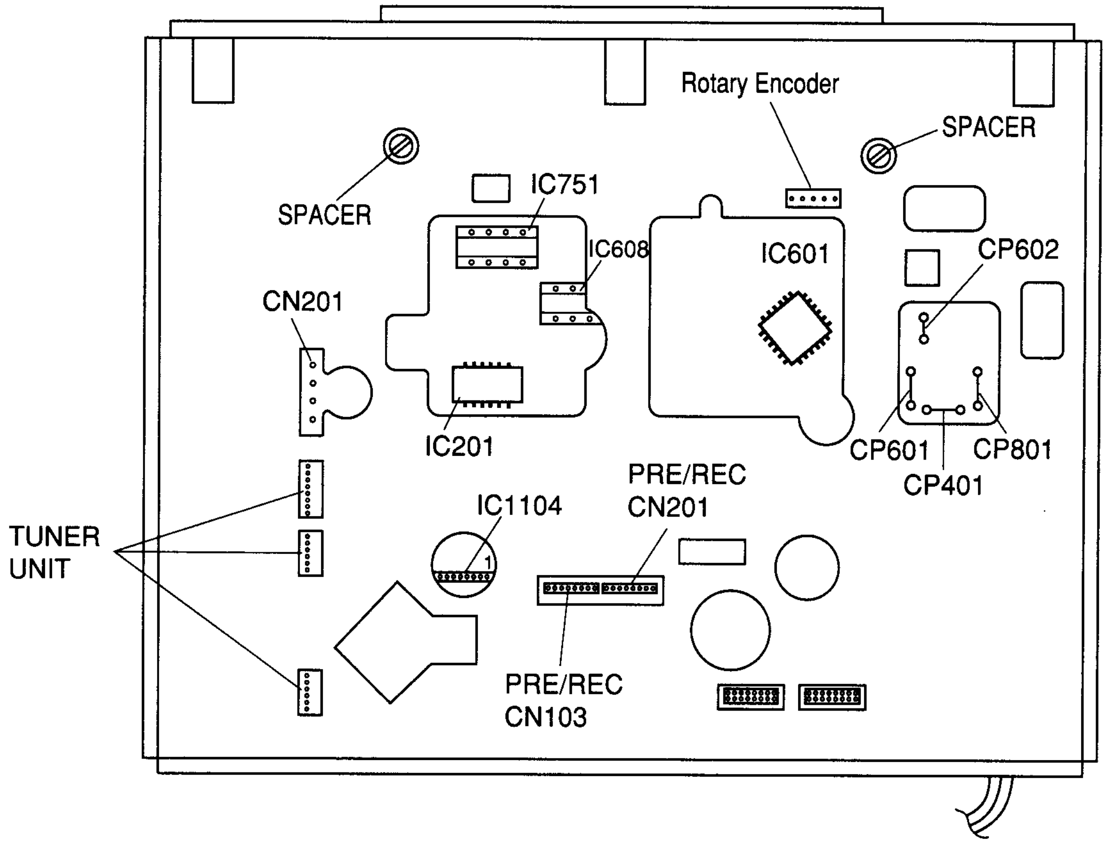

Rotary Encoder
SPACER
SPACER
IC751
IC608
IC601
CP602
CN201
IC201
CP601
CP801
CP401
PRE/REC
CN201
IC1104
1
TUNER
UNIT
PRE/REC
CN103

Fig. 1-5-4

1.6 MECHANISM SERVICE MODE

This model has a unique function to enter the mechanism into every operation mode without loading of any cassette tape. This function is called the "MECHANISM SERVICE MODE".

1.6.1 How to set the "MECHANISM SERVICE MODE"

(1) Disconnect VCR from AC.
(2) Remove the Top cover, Front panel assy and cassette housing assy. (See Page 1-2, 1-3)
(3) Connect TP2 (GND) and TP1 (TEST) on the DISPLAY board assy with a jump wire.
(4) Connect VCR to AC.
(5) Press the POWER button.
(6) Select the desired operation modes with the operation buttons or remote controller.

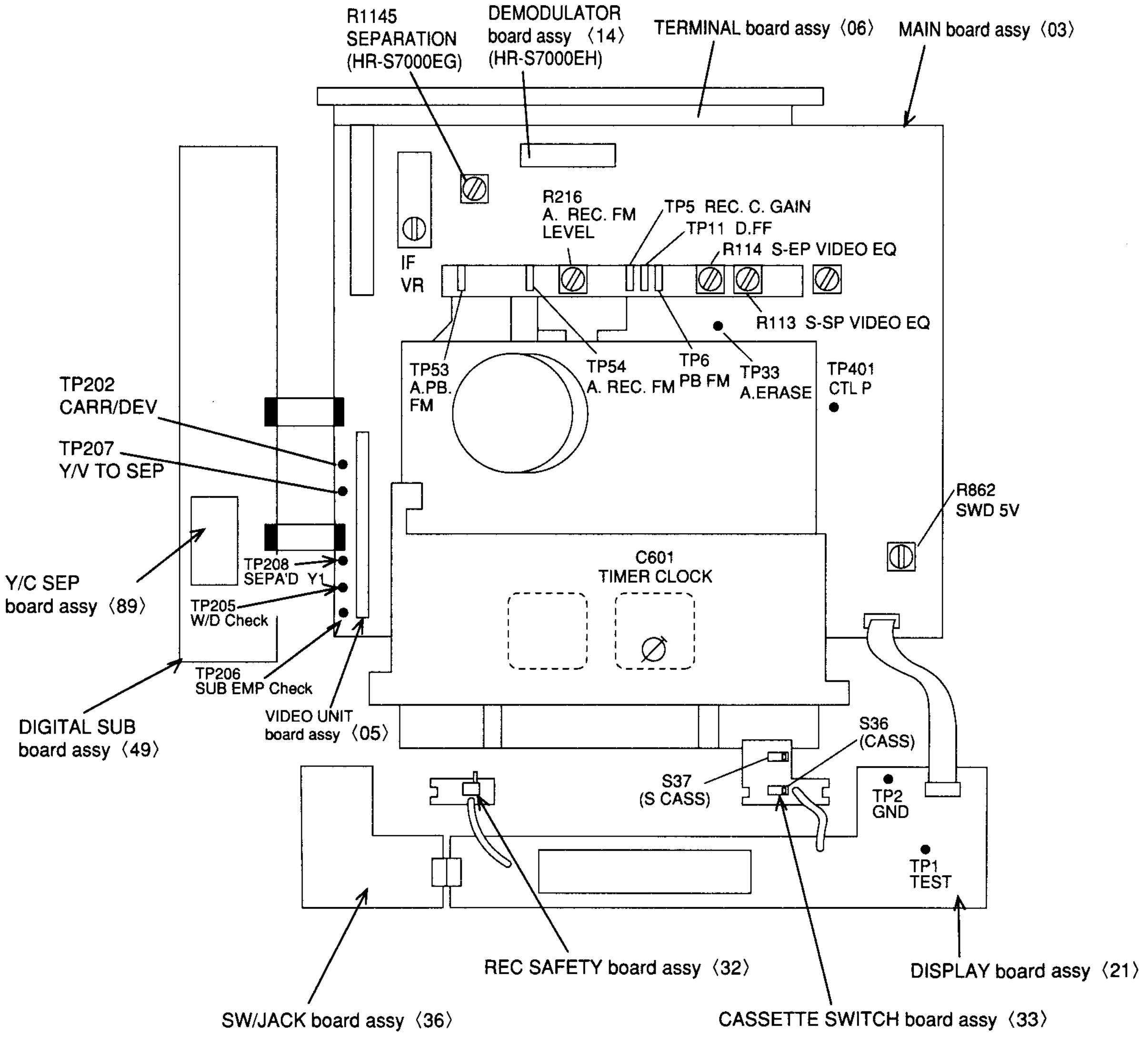

R1145
SEPARATION
(HR-S7000EG)
DEMODULATOR
board assy 〈14〉
(HR-S7000EH)
TERMINAL board assy 〈06〉
MAIN board assy 〈03〉
R216
A. REC. FM
LEVEL
TP5 REC. C. GAIN
TP11 D.FF
R114 S-EP VIDEO EQ
IF
VR
R113 S-SP VIDEO EQ
TP53
A.PB.
FM
TP54
A. REC. FM
TP6
PB FM
TP33
A.ERASE
TP401
CTL P
TP202
CARR/DEV
TP207
Y/V TO SEP
R862
SWD 5V
C601
TIMER CLOCK
Y/C SEP
board assy 〈89〉
TP208
SEPA'D Y1
TP205
W/D Check
TP206
SUB EMP Check
DIGITAL SUB
board assy 〈49〉
VIDEO UNIT
board assy 〈05〉
S36
(CASS)
S37
(S CASS)
TP2
GND
TP1
TEST
REC SAFETY board assy 〈32〉
DISPLAY board assy 〈21〉
SW/JACK board assy 〈36〉
CASSETTE SWITCH board assy 〈33〉

Fig. 1-6-1

1.7 EMERGENCY DISPLAY FUNCTION

This product has the function to store the last two previous emergency faults which can be displayed in the FDP when servicing.

1.7.1 How to display record of an emergency faults

(1) Press "N" button of the presetting unit more than 2 seconds. and the two previous emergency faults are shown in the FDP.
(2) Press "N" button of the presetting unit again to return to the normal mode.

[Example] E : 01 : 03
Emergency faults before last
Emergency faults of the last time

[Example] E : — — : — — ← No record of emergency

1.7.2 Detail of emergency faults

FDP	Symptom	Detect mode	Resulting mode
E : 01	Loading motor rotates for more than 8 Sec without shift to next mode.	Loading	POWER OFF
E : 02	Loading motor rotates for more than 8 Sec without shift to next mode.	Unloading	POWER OFF
E : 03	SUP or TU REEL FG input is absent (for more than 4 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP → POWER OFF
E : 04	DRUM FF input is absent(for more than 3 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP
E : 06	CAPSTAN FG input is absent(for more than 1 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP → POWER OFF
E : 07	No SWD5V/12V	POWER ON	POWER OFF

Table 1-7-1 EMERGENCY FAULTS

1.7.3 How to clear emergency record

Press the COUNTER RESET button on the remote controller in the emergency record display mode,and the record of the emergency fault(s) is cleared.

SECTION 2
MECHANISM ADJUSTMENT

2.1 PREPARATION

2.1.1 Precautions

(1) Disconnect VCR from AC power before soldering.
(2) Avoid imparting stress to wires when disengaging connectors.
(3) Determine and correct the cause of difficulty before proceeding to adjustments.Do not disturb settings unnecessarity.
(4) Use care not to damage tabs,claws,etc during repairs.
(5) Install the cassette housing assy only when the mechanism is in the MECHANISM ASSEMBLING MODE position.
(6) When installing the Front panel assy,be sure to engage the housing door with the door opener of the cassette housing assy.
If this is omitted,the cassette door will not open at Eject and the cassette can not be removed. (See SECTION 1 DISASSEMBLY.)

2.1.2 Check without cassette housing assy.

Mechanism operations can be observed easily by removing the cassette housing assy. Use the MECHANISM SERVICE MODE (See SECTION 1 DIASSEMBLY)

2.1.3 Manual removal of loaded tape

When the deck enters the emergency mode with cassette tape loaded and it can not be ejected by pressing the EJECT button,take out of the cassette tape according to the following procedure.

(1) Disconnect the power cord from AC outlet then take out the Top cover and Front panel assy.
(2) Turn the mode motor on the Main deck assy by hand in the unloading direction to where the pole base assy (supply and take-up) is positioned below the cassette tape.At that time, pay careful attention to the tape not to get soiled with grease.
(3) Take out 4 screws of the cassette housing assy.(See SECTION 1 DISASSEMBLY)
(4) Remove the cassette housing with slackened tape and guard panel of cassette.
(5) Wind up the tape by turning the reel hub(either supply or take-up side for convenience) from the bottom of the cassette,and remove the cassette tape.

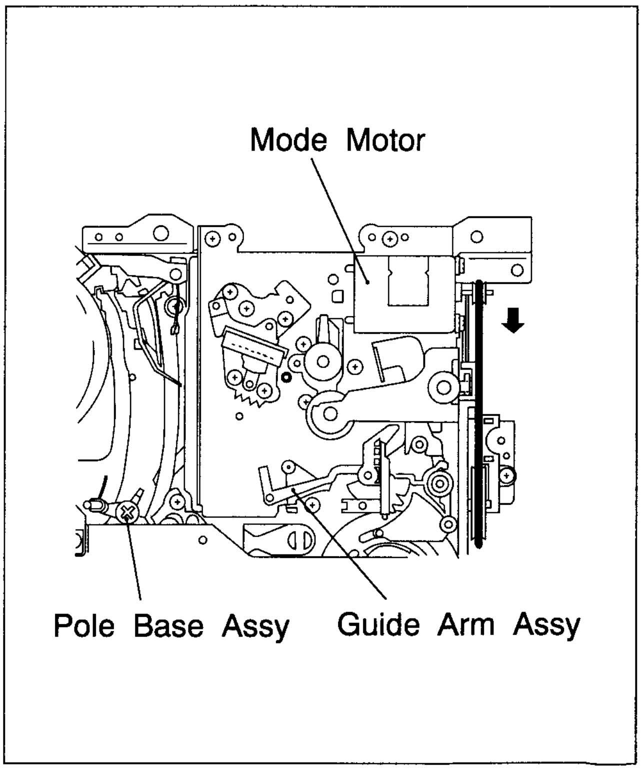


Fig. 2-1-1

2.1.4 Test Equipment

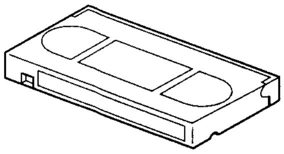
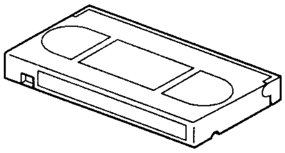
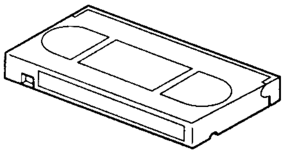
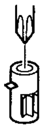
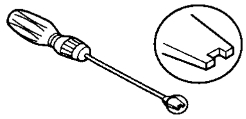
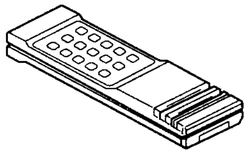
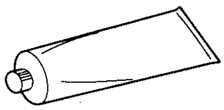
Alignment tape (SP) MHPE	Alignment tape (LP) MHPE-L	Back tension cassette gauge PUJ48076-2	A/C head positioning tool PTU94010
			
Roller driver PTU94002	Presetting unit PTU94008	Grease KYODO-SH-P	
			

Table 2-1 Test equipment

2.2 MAIN MECHANISM PARTS

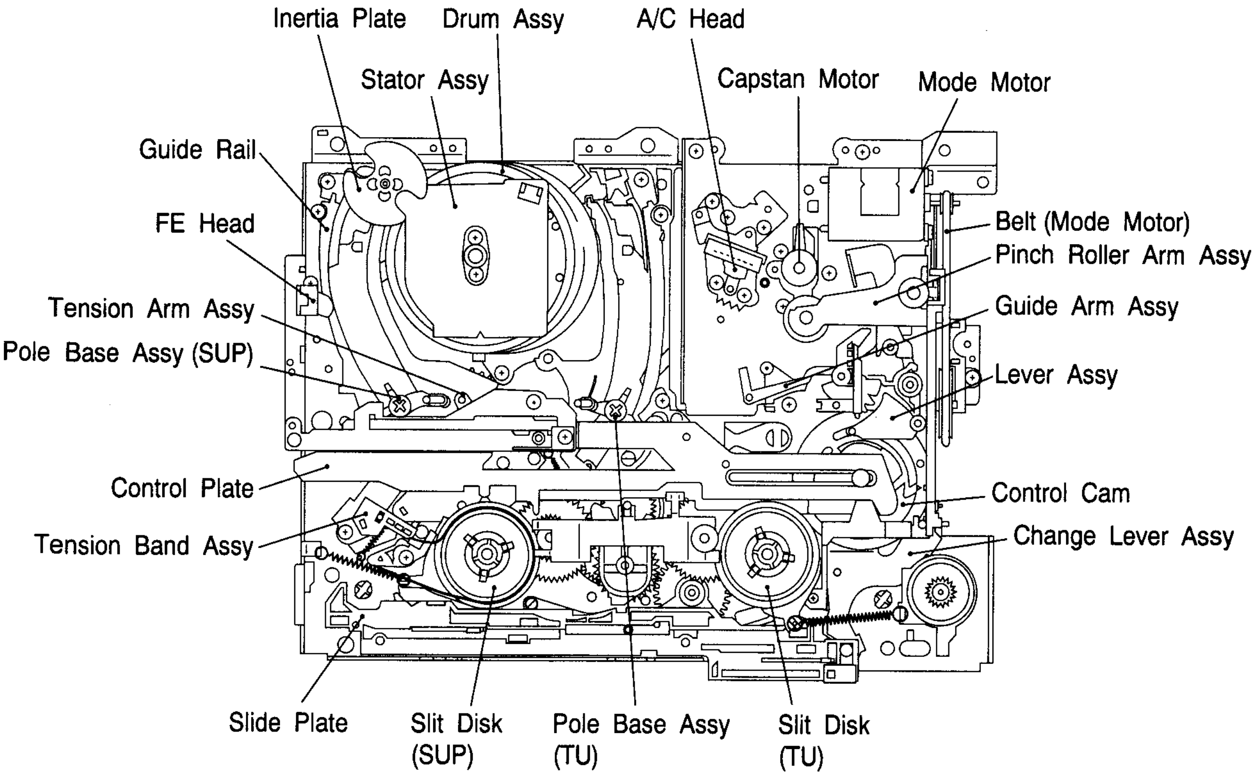

Inertia Plate
Drum Assy
A/C Head
Stator Assy
Capstan Motor
Mode Motor
Guide Rail
FE Head
Belt (Mode Motor)
Pinch Roller Arm Assy
Tension Arm Assy
Guide Arm Assy
Pole Base Assy (SUP)
Lever Assy
Control Plate
Control Cam
Tension Band Assy
Change Lever Assy
Slide Plate
Slit Disk
(SUP)
Pole Base Assy
(TU)
Slit Disk
(TU)

Fig. 2-2-1 Top view of main deck

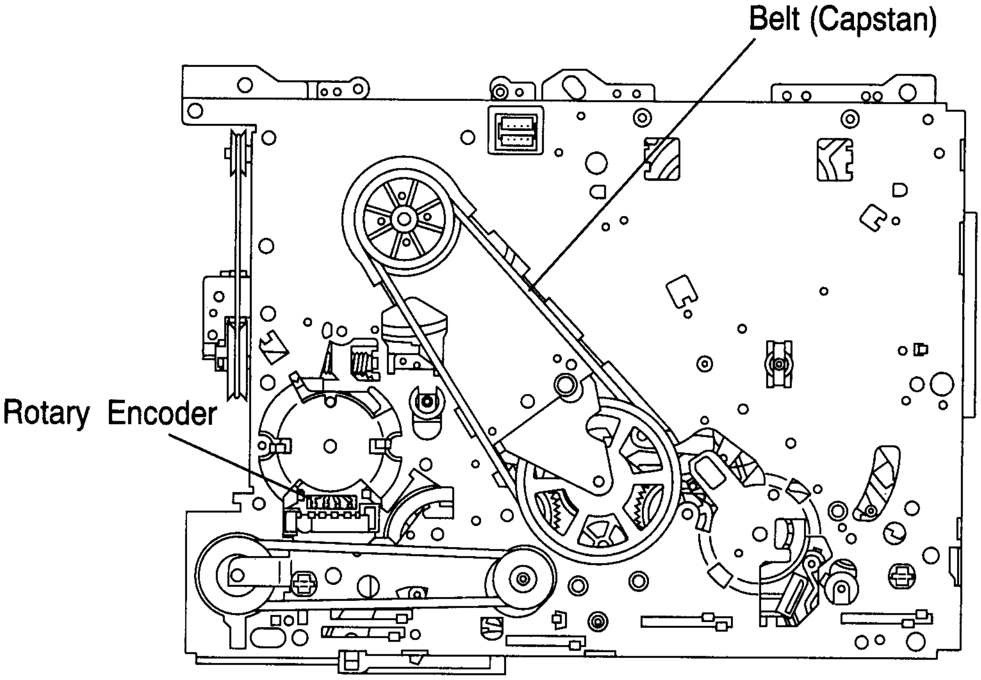


Fig. 2-2-2 Bottom view of main deck

2.2.1 Cleaning

Periodic cleaning of the tape transport system is desirable,but ordinarity not feasible in practice.Therefore,perform cleaning when a set is brought in for repairs or maintenance. Contamination of the video heads,tape guides and brush can detract from playback picture quality and in extreme cases,even damage the tape.For cleaning,use a finemesh cotton cloth(about the texture of a while dress-shirt) moistened in alcohol. It is recomended to also clean thetape tension posts and capstan.

- To clean the video heads,press the moistened cloth gently against the upper drum with fingertip and turn the drum gy hand.
- Do not use a vertical stroke,as this may damage the heads.

2.2.2 Lubrication

Oil and grease do not normally require periodic replenshing. Apply only when replacing lubricated parts(also clean and replace lubrication of mating parts if soiled). For parts and points to apply oil and grease, refer to the exploded views of the mechanism assy. Before oiling,clean with alcohol.Apply one or two drops of oil. Avoid excess oil.

1. Table 2-2-1 indicates the oil and grease used in this set. Use these or recommended locally available equivalents.

Category	Part No.
Oil	COSMO-HV56
Grease	KYODO-SH-P

Table 2-2-1

2. Grease is not required for a replacement cassette housing assy,as this has been applied at the factory.

NOTE : *Stir grease that has been stored for an extended period.*

2.3 INSPECTION AND MAINTENANCE

This product employs rotary and moving parts which wear out in the course of usage.Periodic inspection, cleaning, lubrication and maintenance are therefore important for ensuring maximum performance. Worn parts must also be replaced as and when required.

2.3.1 Suggested servicing schedule for main components

The following table indicates the suggested period for such service measures as cleaning,lubrication and replacement. In practice, the indicated periods will vary widely according to environmental and usage conditions.However, the indicated components should be inspected when a set is brought for service and the maintenance work performed if necessary. Also note that rubber parts may deform in time,even if the set is not used.

System	Parts Name	Operation Hours	
		~1000H	~2000H
Tape transport	Upper drum assy	★○	○
	A/C head	★○	★○
	Lower drum motor assy	★	★○
	Pinch roller arm assy	★	★
	Full erase head	★	★
	Tension arm assy	★	★
	Guide arm assy	★	★
Drive	Capstan motor		○
	Belt (Capstan)	○	○
	Belt (Mode motor)		○
	Mode motor		○
	Slit disk (supply, take-up)		○
	Clutch unit (supply, take-up)		○
	Worm gear assy		○
	Control plate		○
	Slide plate		○
Other	Brush assy	★○	★○
	Tension band assy	○	○
	Rotary encoder		○

★ : Cleaning

○ : Inspection or Replacement if necessary

Table 2-3-1

2.4 DISASSEMBLY/ASSEMBLY PROCEDURE OF MECHANISM

2.4.1 Precaution before disassembling mechanism

This mechanism has an exclusive operation mode provided for disassembling and installation of the mechanism (MECHANISM ASSEMBLING MODE), and it is suggested to set the mechanism to this mode before disassembly and installation.The exclusive mechanism operation mode is not generally used and becomes available by manual setting only. Then this procedure starts with the condition that the cabinet parts,cassette housing assy and PRE/REC board assy have been removed.

2.4.2 How to set the exclusive mechanism operation mode (MECHANISM ASSEMBLING MODE)

(1) Turn the mode motor belt by hand.

(2) Confirm that the hole of the control cam are aligned to the deck hole as shown in Fig.2-4-1.

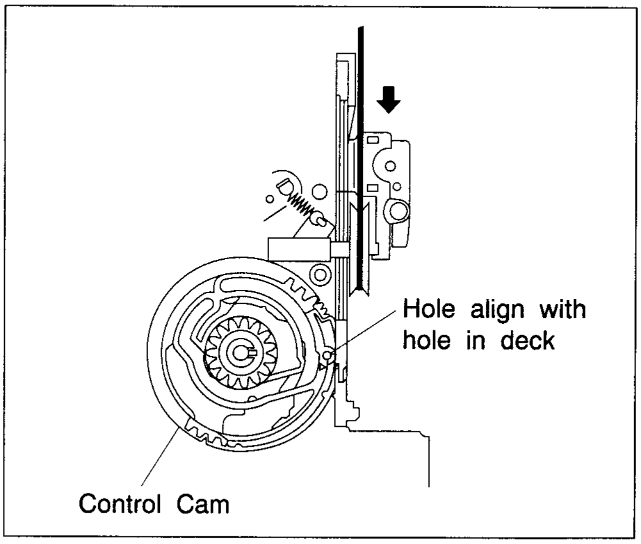


Fig. 2-4-1

2.5 MAIN PARTS REPLACEMENT OF MECHANISM

2.5.1 Pinch Roller Arm ASSY

(1) Remove the slit washer.

(2) Tilt up the pinch roller assy in direction of arrow.

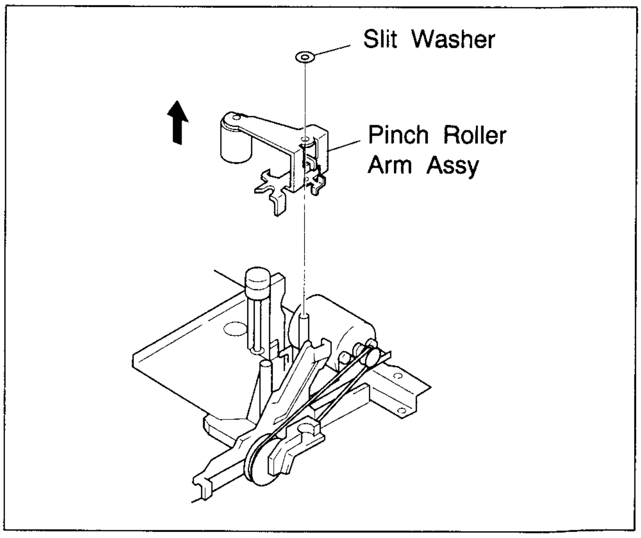


Fig.2-5-1

2.5.2 A/C Head

1. Removal

(1) Take out 2 screws (A).

(2) Remove the A/C head with head base.

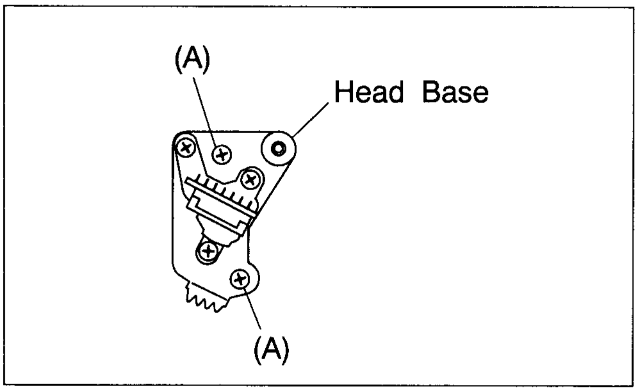

(A)
Head Base
(A)

Fig.2-5-2

(3) When replacing the A/C head only,remove 3 screws (B), use care not to misplace the 3 springs.

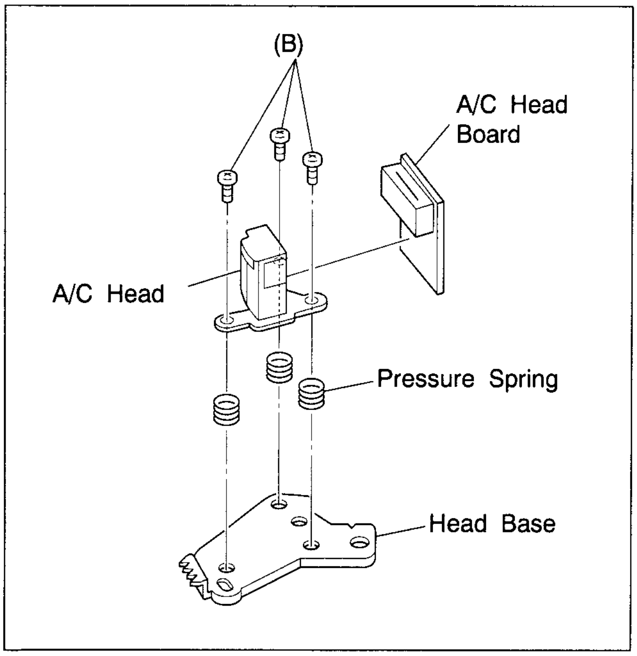

(B)
A/C Head Board
A/C Head
Pressure Spring
Head Base

Fig.2-5-3

2. Installation

(1) Temporarily set A/C head height as indicated in Fig. 2-5-4.

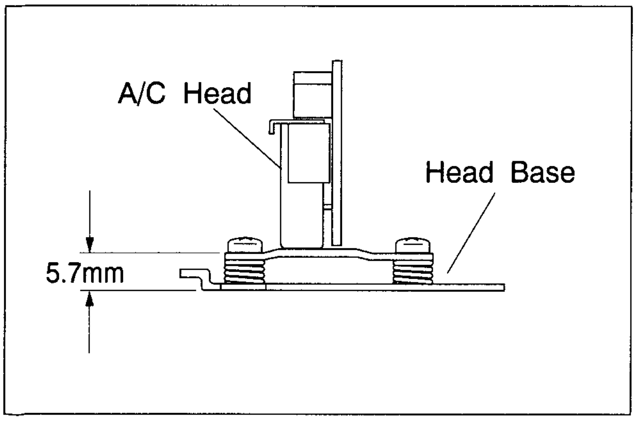

A/C Head
Head Base
5.7mm

Fig.2-5-4

NOTES:

- *It is very important to correctly adjust the control pulse and audio signal in addition to the mechanical tape path.*
- *Perform interchangeability adjustments after electrical adjustments.*

2.5.3 Pinch Plate

1. Removal

(1) Disengage 2 claws, then remove the pinch plate.

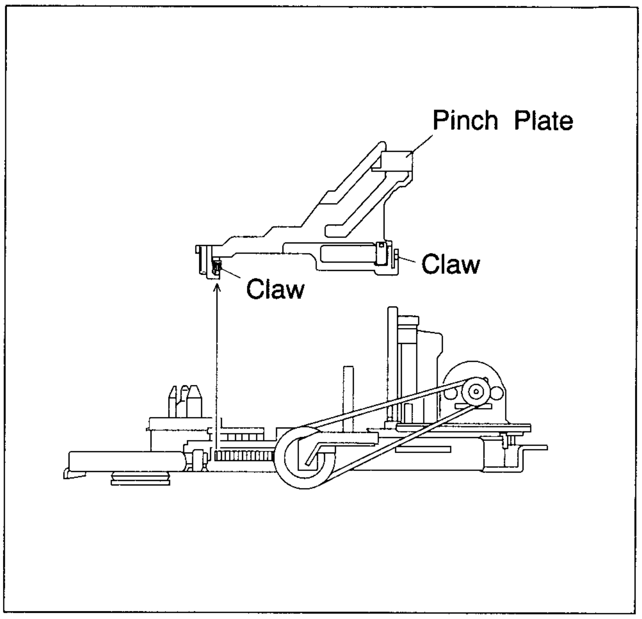

Pinch Plate
Claw
Claw

Fig.2-5-5

2. Installation

(1) When installing pinch plate,align rack of pinch plate and triangle mark of control cam as indicated in Fig.2-5-6.

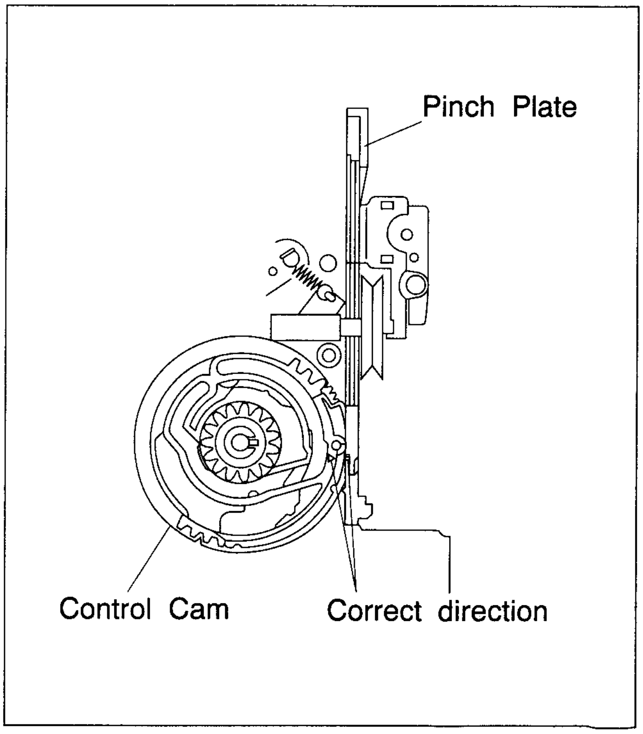

Pinch Plate
Control Cam
Correct direction

Fig. 2-5-6

2.5.4 Mode Motor

(1) Disengage the belt between mode motor and worm gear.
(2) Take out 2 screws (A) then remove the mode motor.

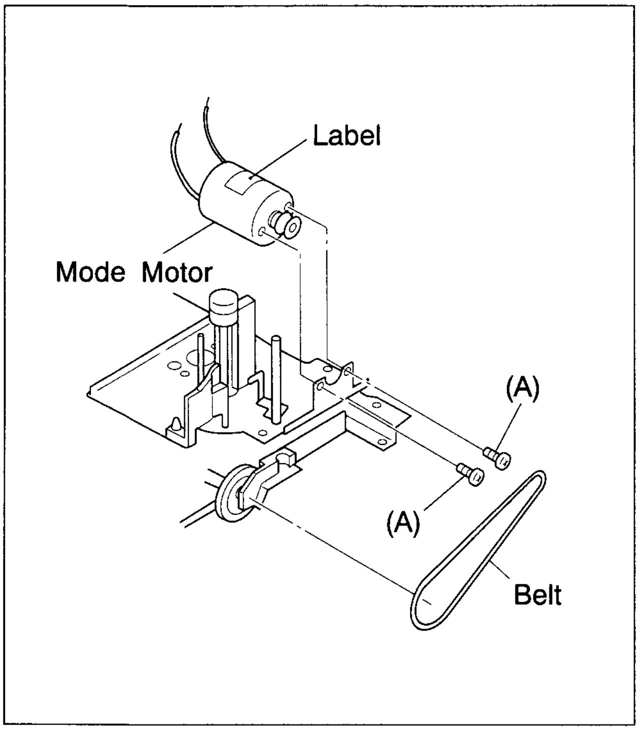

Label
Mode Motor
(A)
(A)
Belt

Fig.2-5-7

2.5.5 Lever Assy,Sub Deck Assy,Capstan Motor

(1) Take out 1 slit washer,then remove the lever assy.
(2) Disengage the belt(capstan motor) from bottom of mechanism assy first as indicated in Fig.2-5-10.
(3) Take out 3 screws (A) and remove the sub deck assy as indicated in Fig.2-5-8.
(4) Take out 3 screws (B) and remove the capstan motor from the sub deck assy as indicated in Fig.2-5-9.

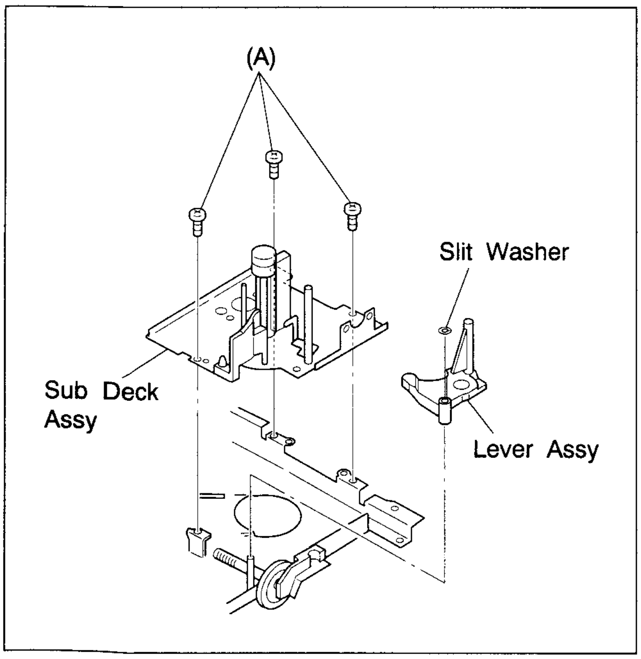

(A)
Slit Washer
Sub Deck Assy
Lever Assy

Fig.2-5-8

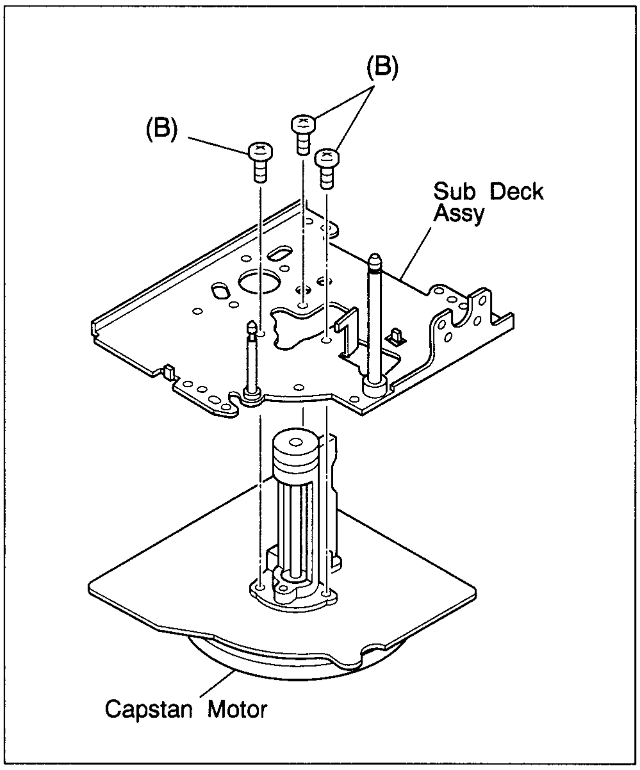

(B)
(B)
Sub Deck Assy
Capstan Motor

Fig.2-5-9

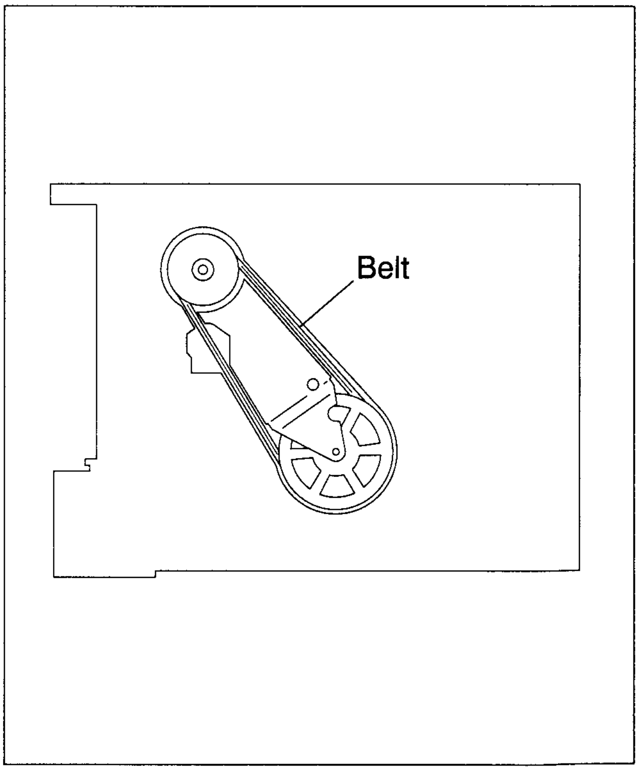


Fig.2-5-10

2.5.6 Control Bracket-1,Earth Plate

(1) Take out 1 screw (A) and 1 screw (B).
(2) Remove the control bracket-1 and earth plate.

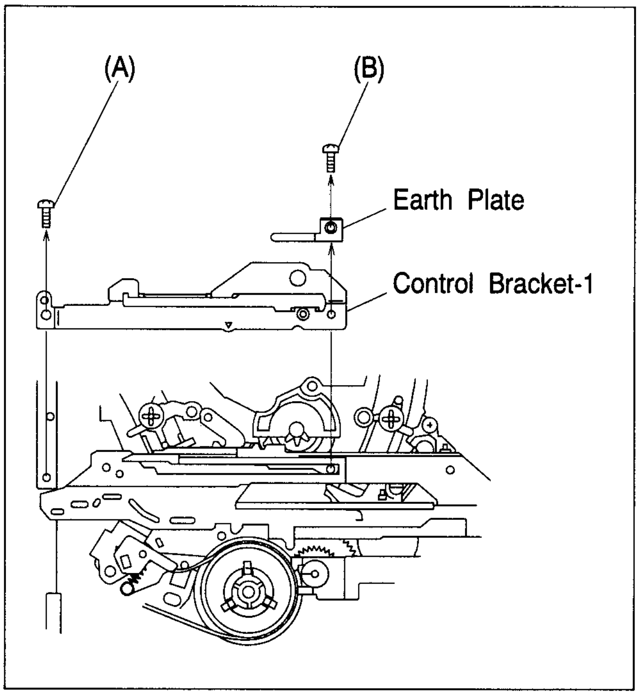

(A)
(B)
Earth Plate
Control Bracket-1

Fig.2-5-11

2.5.7 Reel Bracket,Slit disk (take-up)

(1) Take out 2 slit washers.
(2) Remove the reel bracket and slit disk(take-up).

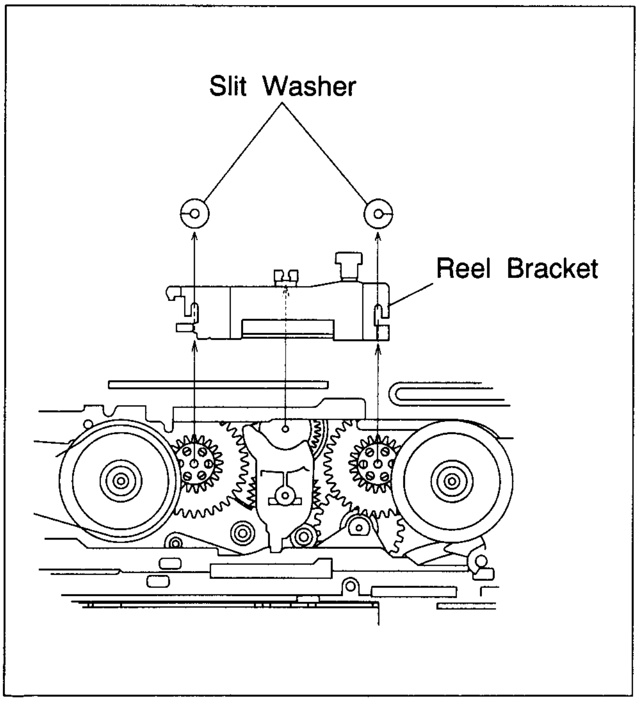

Slit Washer
Reel Bracket

Fig.2-5-12

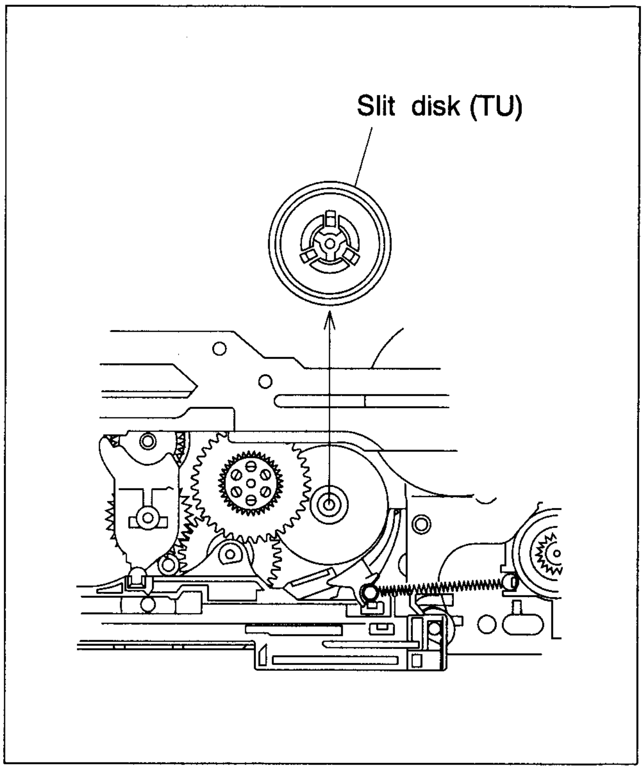

Slit disk (TU)

Fig.2-5-13

2.5.8 Control Bracket-2,Control Plate

(1) Take out 1 screw (A) and remove the control bracket-2.
(2) Take out 1 slit washer.
(3) Disengage 2 claws and remove the control plate.

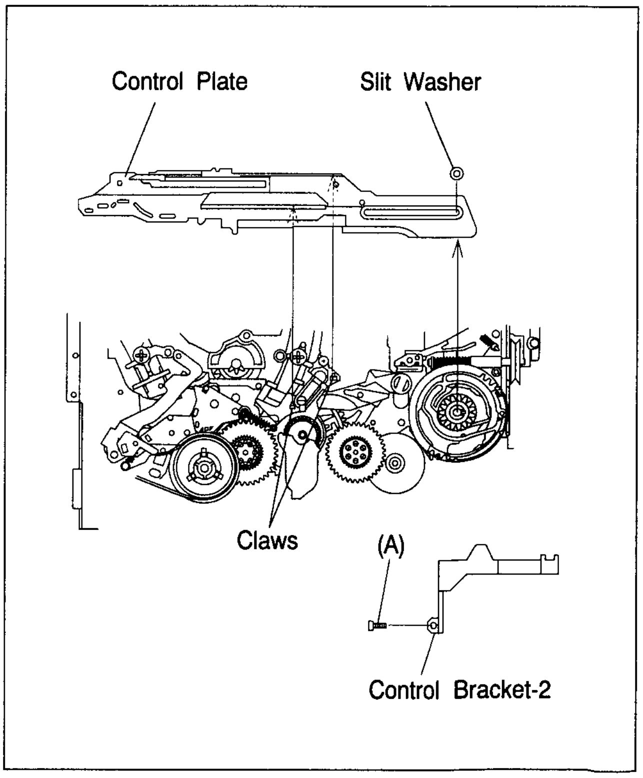

Control Plate
Slit Washer
Claws
(A)
Control Bracket-2

Fig.2-5-14

2.5.9 Sub Brake(take-up),Control Cam

(1) Disengage 1 spring (a) and 1 claw then remove the sub brake (take-up).

(2) Disengage 1 claw and remove the control cam.

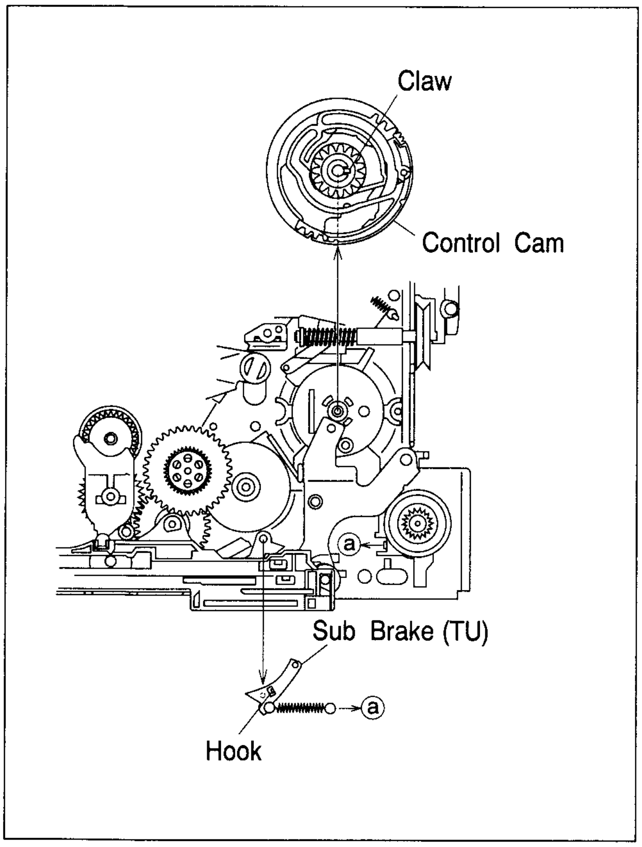

Claw
Control Cam
a
Sub Brake (TU)
a
Hook

Fig.2-5-15

2.5.10 Slide Plate

(1) Disengage 7 claws from bottom of the mechanism assy and remove the slide plate.

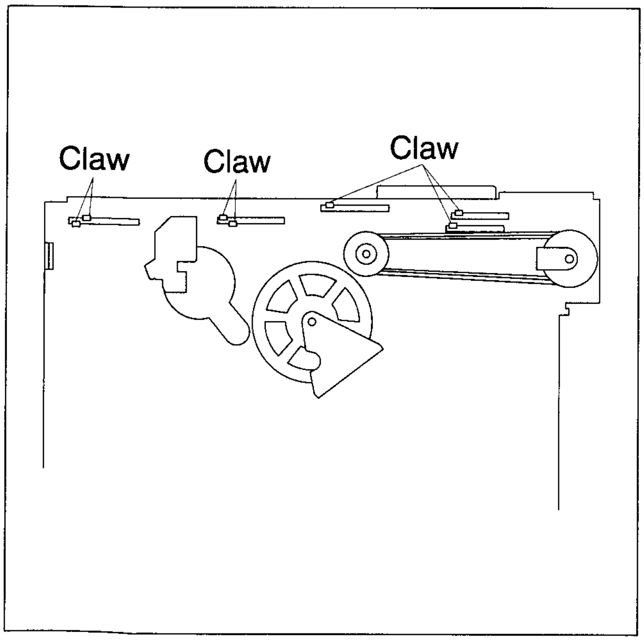

Claw
Claw
Claw

Fig. 2-5-16

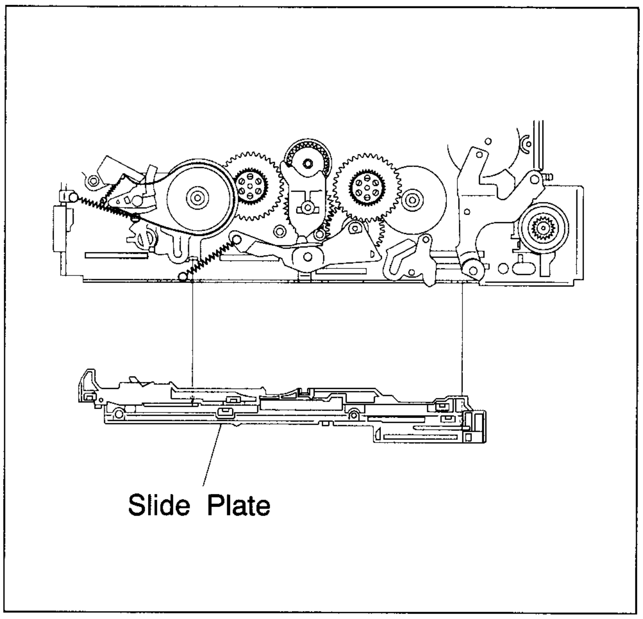

Slide Plate

Fig. 2-5-17

2.5.11 Change Lever,Rotary Encoder

(1) Remove the change lever.

(2) Disengage 2 claws and remove the rotary encoder.

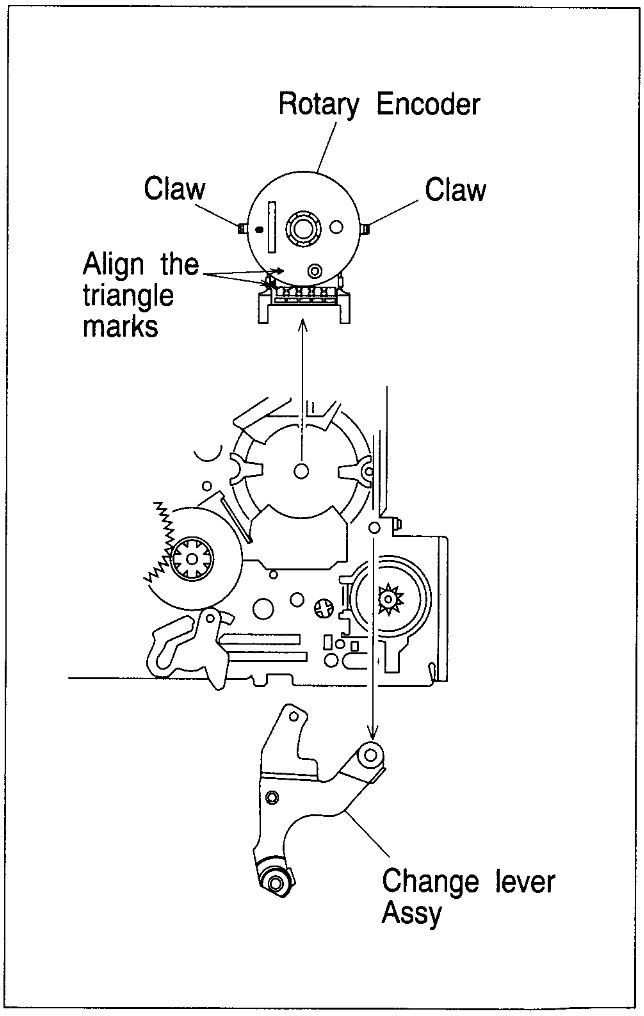

Rotary Encoder
Claw
Claw
Align the triangle marks
Change lever Assy

Fig. 2-5-18

2.5.12 Sub Brake (supply),Tension Band Assy,Tension Arm Assy,Take-up Lever Assy,Slit Disk(supply)

(1) Disengage 1 spring (a).
(2) Disengage 1 claw and remove the sub brake (supply).
(3) Take out 1 screw (A),spring (c) and slit washer.
(4) Remove the tension arm assy with tension band assy.
(5) Disengage 1 spring (b) and remove the take-up lever assy.
(6) Remove the slit disk(supply).

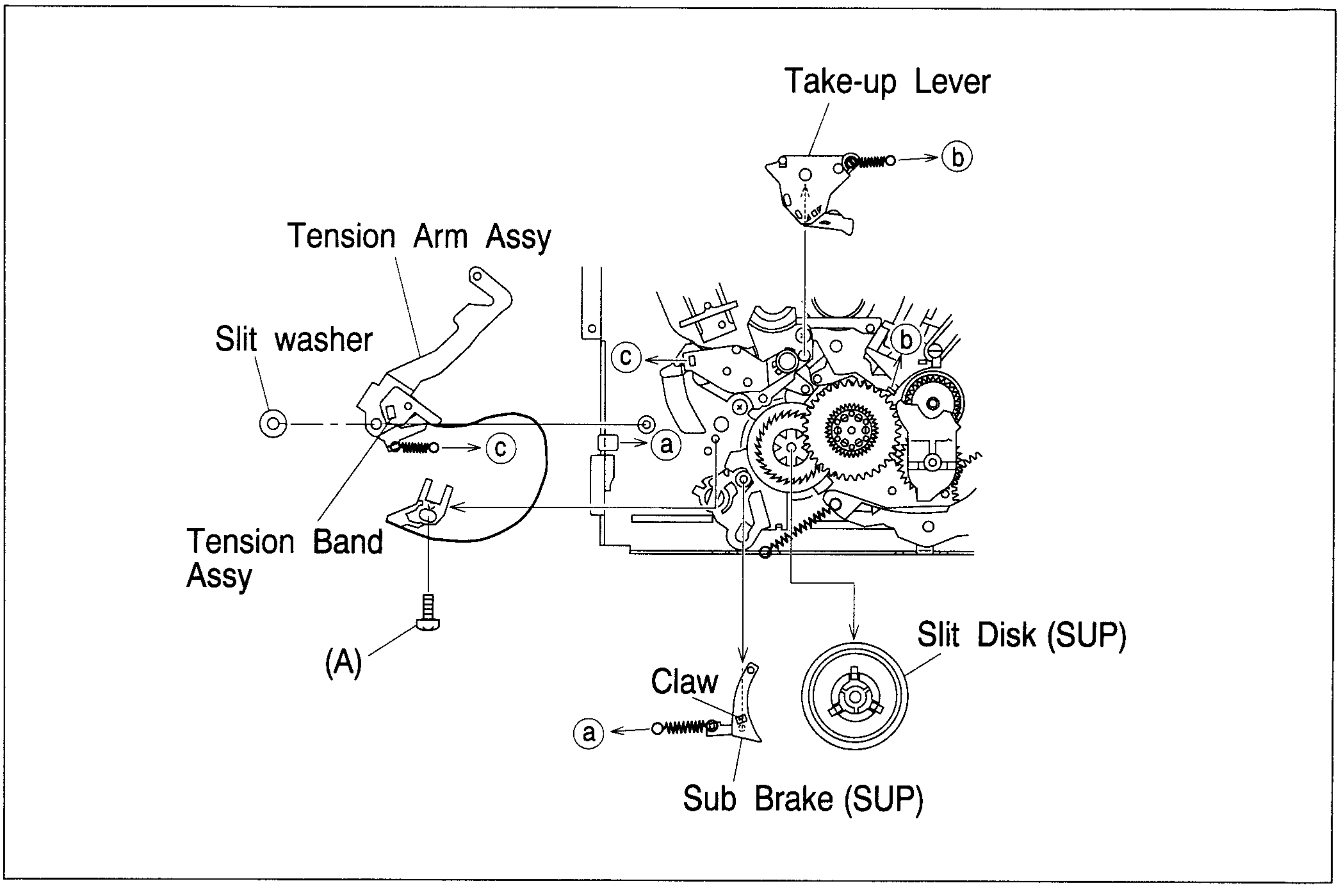

Take-up Lever
ⓑ
Tension Arm Assy
Slit washer
ⓒ
ⓑ
ⓒ
ⓐ
Tension Band Assy
(A)
Slit Disk (SUP)
Claw
ⓐ
Sub Brake (SUP)

Fig. 2-5-19

2.5.13 Take-up Head,Tension Arm Lever

(1) Remove the take-up head and tension arm lever.

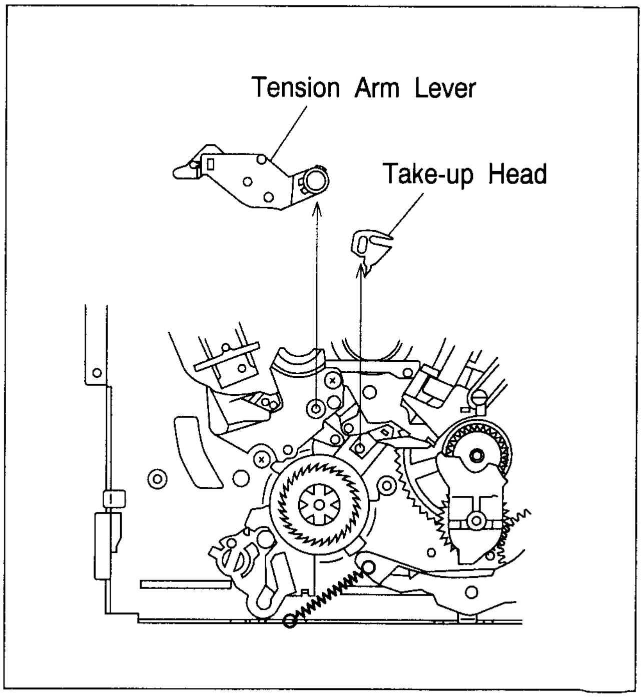

Tension Arm Lever
Take-up Head

Fig.2-5-20

2.5.14 Guide Rail

(1) Take out 5 screws (A) and 1 screw (B).

(2) Disengage 4 claws and remove the guide rail.

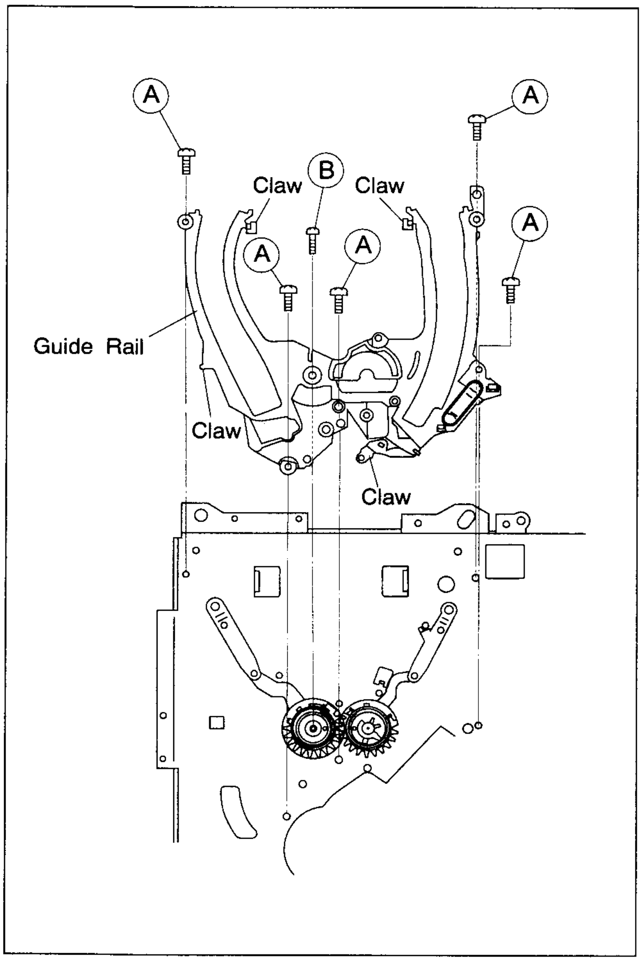

A
A
Claw
B
Claw
A
A
A
Guide Rail
Claw
Claw

Fig. 2-5-21

2.5.15 Stator Assy

(1) Take out 2 screws (A).

(2) Raise the stator assy in the direction indicated by the arrow to remove it (also remove the inertia roller).

(3) Remove the flat cable.

(4) To reinstall,first secure the flat cable,then insert 2 screws (A).

(5) After reinstalling, be sure to perform PB switching point adjustment(See SECTION 3 ELECTRICAL ADJUSTMENT).

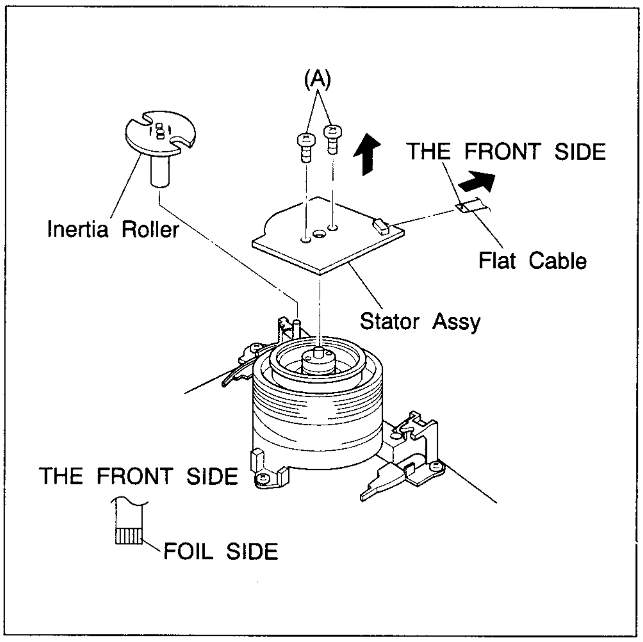

(A)
THE FRONT SIDE
Inertia Roller
Flat Cable
Stator Assy
THE FRONT SIDE
FOIL SIDE

Fig. 2-5-22

NOTE : *When refitting the connector, check that the flat wire is inserted correctly.*

2.5.16 Rotor Assy

(1) Remove the stator assy.

(2) Take out 2 screws (B) and remove the rotor assy.

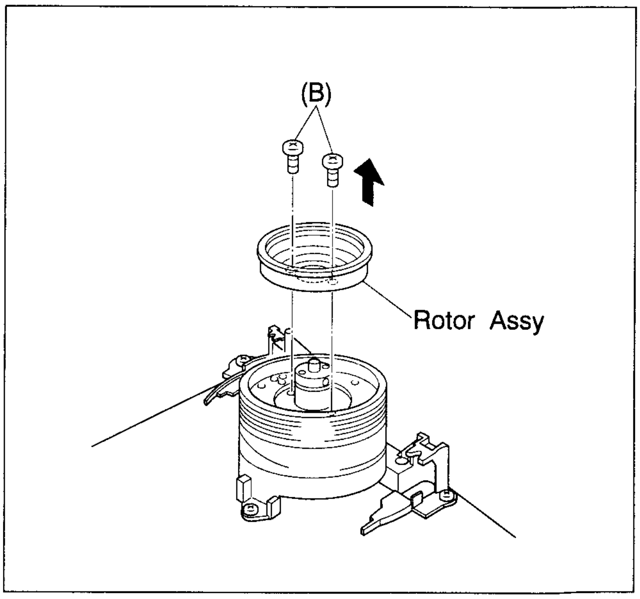

(B)
Rotor Assy

Fig.2-5-23

(3) Align the upper dum assy and rotor assy phase as indicated in Fig.2-5-22.
(4) Overlap holes (a) of the upper drum assy with holes (b) of the rotor assy (align holes in 3 locations) and secure with 2 screws (B) as indicated in Fig.2-5-21.

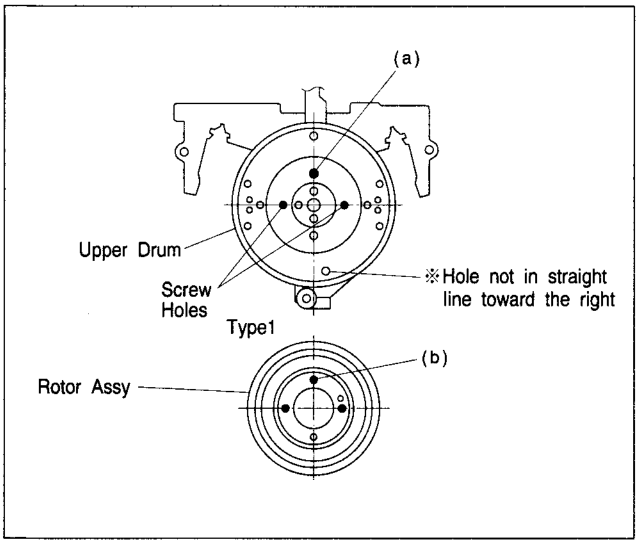

(a)
Upper Drum
Screw Holes
※Hole not in straight line toward the right
Type1
(b)
Rotor Assy

Fig. 2-5-24

2.5.17 Upper Drum Assy

1. Removal

(1) Remove the stator assy and rotor assy.
(2) Use a 1.5 mm hexagonal wrench to loosen the collar assy screw and remove the collar assy.
(3) Remove the upper drum assy and use tweezers to remove the Washer.

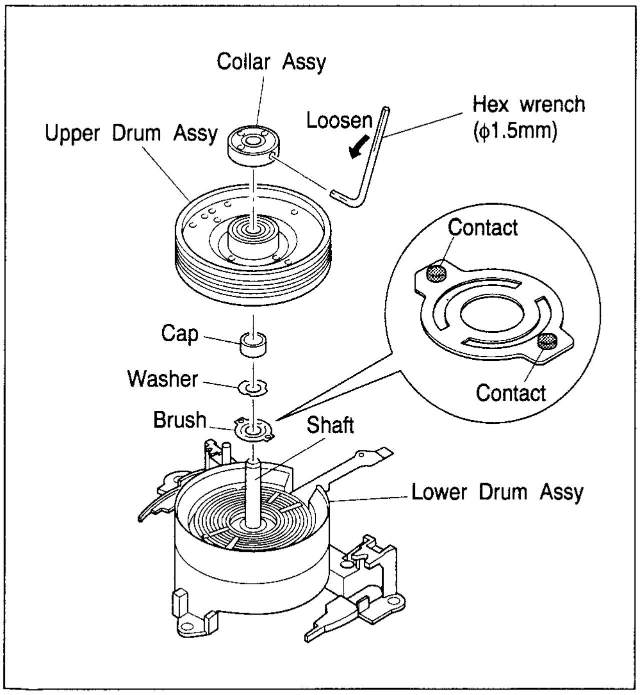

Collar Assy
Upper Drum Assy
Loosen
Hex wrench (φ1.5mm)
Contact
Cap
Washer
Contact
Brush
Shaft
Lower Drum Assy

Fig. 2-5-25

NOTE : *If the Brush is replaced, do not apply the grease to the contacts.*

2. Installation

(1) Use an air brush to clean the lower drum assy and the coil section of the new upper drum assy.
(2) Set a new washer on the drum shaft as indicated in Fig.2-5-25.

NOTE : *Be sure to use the new washer when replace the upper drum assy.*

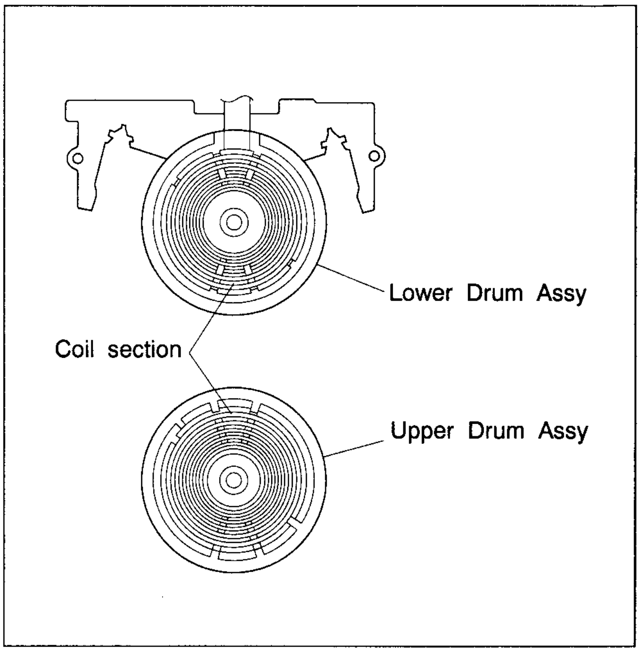

Lower Drum Assy
Coil section
Upper Drum Assy

Fig.2-5-26

(3) Note the top and bottom of the collar assy and determine the position as indicated in Fig.2-5-25.

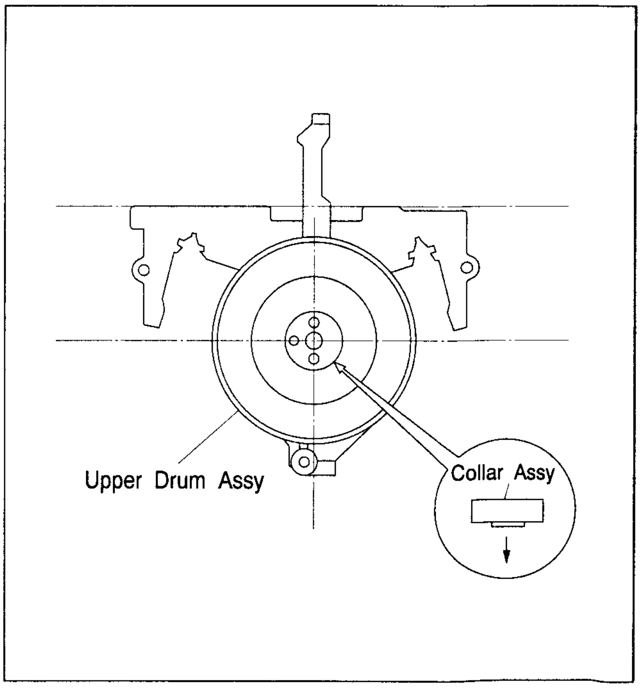

Upper Drum Assy
Collar Assy

Fig.2-5-27

(4) While pressing the collar assy evently from above with your fingertips,secure the hexagonal screw.

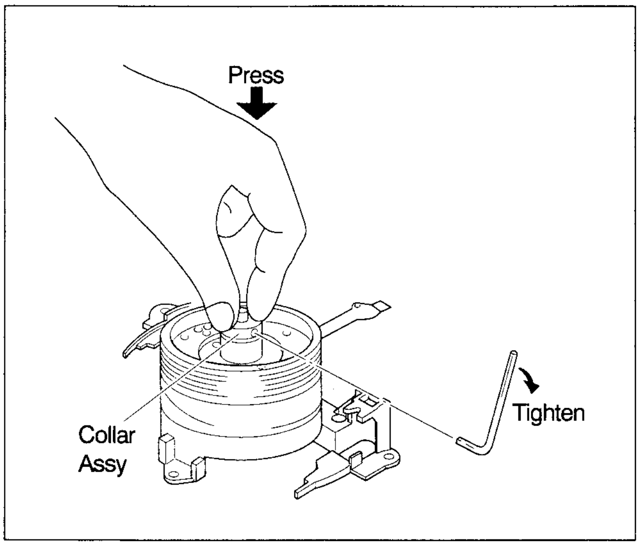

Press
Tighten
Collar Assy

Fig.2-5-28

(5) After installing,gently turn the upper drum by hand and confirm normal rotation.
(6) Install the rotar assy and stator assy.
(7) Clean the upper and lower drum assies and perform the following adjustments;
- PB switching point adjustment
- Slow tracking preset adjustment
- Interchangeability adjustment (be sure to check LP mode)

2.6 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE

2.6.1 Precaution

The rotary encoder and syscon circuit are closely interrelated.Therefore,the rotary encoder and control cam conection determines the operations of mechanical parts such as plates,gears,brakes,etc.Correct positioning of these parts is essential for smooth tape loading and mechanical operations.

2.6.2 Loading Arm Assy (supply,take-up)

(1) Install the supply loading arm assy and the take-up loading arm assy so that their positioning markings on the respective gear face each other and the holes of their arms correspond to the holes on the main deck assy respectively.
(2) After setting the guide rails,engage the pole base assies with the tip of the loading arms respectively. Then,enter the mechanism into the unloading mode to return the pole base assies to the front position.
(3) Reassemble the peripheral parts of the guide rail as originally.

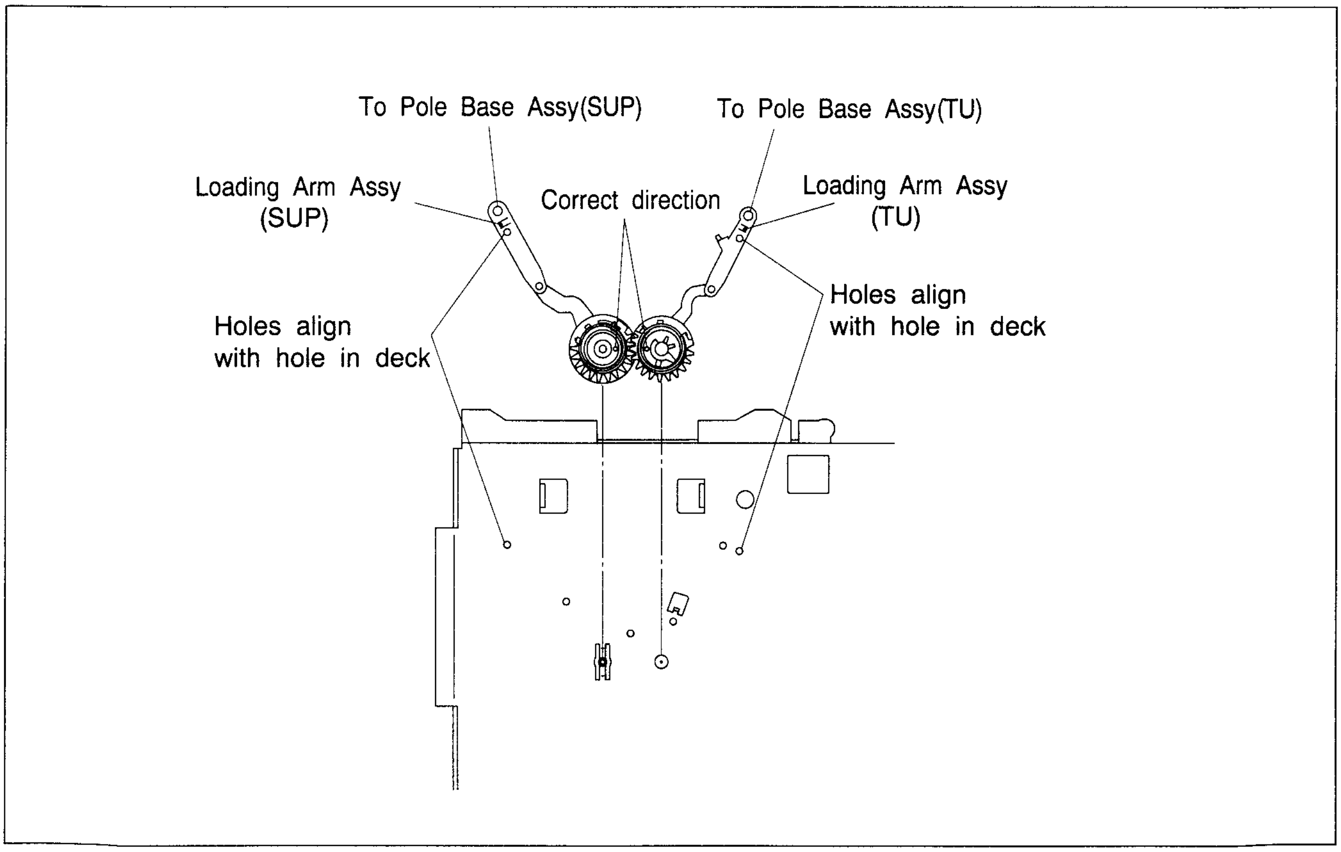

To Pole Base Assy(SUP)
To Pole Base Assy(TU)
Loading Arm Assy (SUP)
Correct direction
Loading Arm Assy (TU)
Holes align with hole in deck
Holes align with hole in deck

Fig. 2-6-1

2.6.3 Rotary Encoder,Change Lever,Control Cam

(1) When reinstalling the rotary encoder,adjust its position so as to fit the triangle marks each other and push it deep untill it is locked by the pawls.
(2) When reinstalling the change lever,set it so as to make its positioning hole correspond to the hole of the main deck assy.
(3) When re-engaging the control cam,lower the capstan brake assy while setting it so as to make its positioning hole correspond to the hole of the main deck assy.

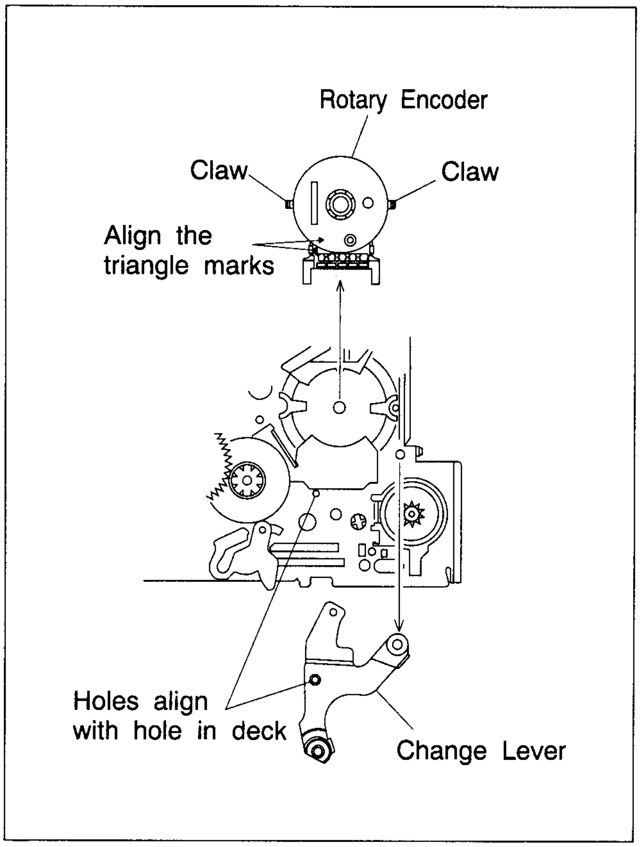

Rotary Encoder
Claw
Claw
Align the triangle marks
Holes align with hole in deck
Change Lever

Fig. 2-6-2

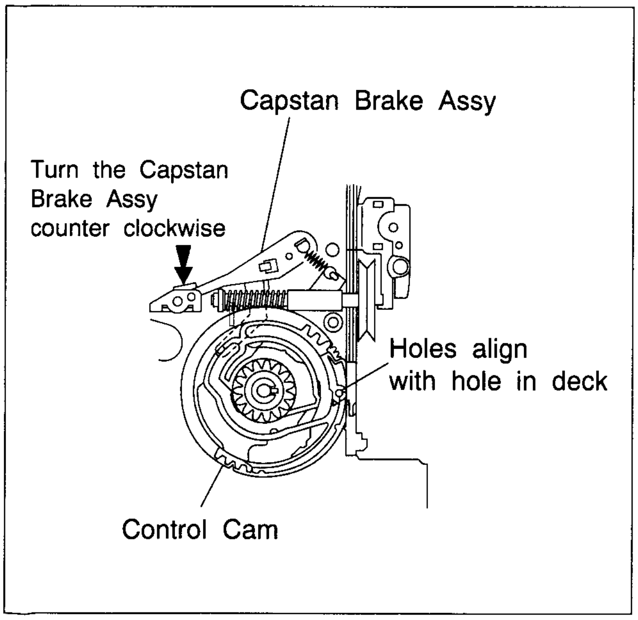

Capstan Brake Assy
Turn the Capstan Brake Assy counter clockwise
Holes align with hole in deck
Control Cam

Fig. 2-6-3

2.6.4 Slide Plate

(1) Lower both the main brake assies (supply and take-up) untill they touch the edge of the main deck assy while reinstalling the slide plate so as to make the respective positioning holes of the main brake assies correspond to the holes on the main deck assy.

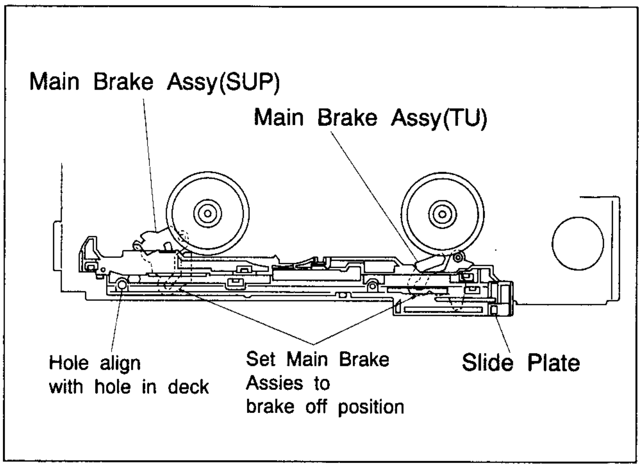

Main Brake Assy(SUP)
Main Brake Assy(TU)
Hole align with hole in deck
Set Main Brake Assies to brake off position
Slide Plate

Fig.2-6-4

2.6.5 Control Plate

(1) Reinstall the control plate so as to set the two positioning holes of it on the holes on the main deck assy respectively and to set the positioning hole of the take-up lever on the hole of the main deck at the same time. When adjusting the hole position of the take-up lever,use a pair of tweezers to hold and move it since it is pulled by a tension spring.
(2) After reinstalling the control plate,fix it with the slit washer,control bracket-1 and -2.

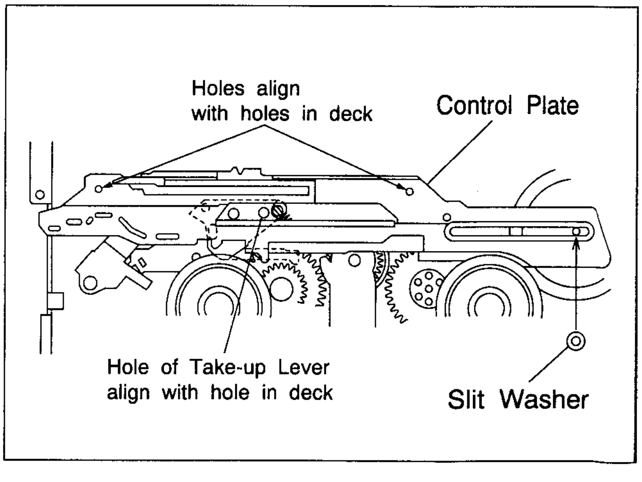

Holes align with holes in deck
Control Plate
Hole of Take-up Lever align with hole in deck
Slit Washer

Fig. 2-6-5

2.7 TAPE INTERCHANGEABILITY ADJUSTMENT

NOTE :
- *This adjustment is extremely important. However, it is normally not required during routine service. Perform only after replacing major components(A/C head,upper/lower drum assy,pole base assy,etc).*
- *Before using costly alignment tape,use a spare tape and confirm correct operation of the tape transport.*

2.7.1 Tape pattern

(1) Connect the oscilloscope to TP6(PB FM) on the PRE/REC board.Use TP11(D.FF) on the PRE/REC board as a trigger.

(2) Playback the SP stairstep portion of the alignment tape [MHPE].Confirm that the FM waveform appears as indicated in Fig.2-7-1.

(3) Set the manual tracking position by pressing the ***///*** button on the remote controller or TV PROG "-" and "+" buttons simultaneously.

(4) Operate the tracking adjustment (press the TV PROG buttons during playback) and set for maximum playback FM waveform.

(5) By operating the TV PROG button,vary the FM waveform from maximum to minimum and vice versa to confirm that the waveform varies nearly in a flat shape as shown in Fig.2-7-1.

(6) When the FM waveform does not remain flat during this process,first slightly loosen the set screw located at the bottom of the guide rollers.Using the guide roller adjustment tool (Roller driver) ,adjust the supply and take-up guide rollers (refer to Fig.2-7-2) to obtain the correct waveform as indicated in Fig.2-7-3.

(7) By pressing the TV PROG buttons several times,vary the FM waveform output from maximum to minimum (and vice versa) gradually,and confirm that the variation proceeds in flat shape, as shown in Fig.2-7-3.

(8) Next playback the LP stairstep portion of the alignment tape [MHPE-L] and adjust the tracking control from maximum to minimum the FM waveform,confirm that FM waveform variation is always flat.

(9) Record the signal and play it back in both of the SP and LP mode,confirm that the FM waveform is flat in both mode.

(10) After adjustments,tighten the set screw of the guide rollers.

(11) Confirm that the tape wrinking does not occur at the roller upper or lower limits as indicated in Fig.2-7-4.

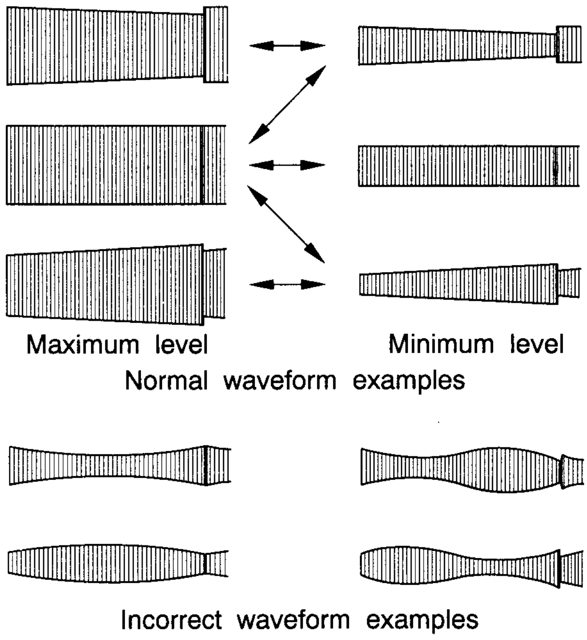


Fig. 2-7-1

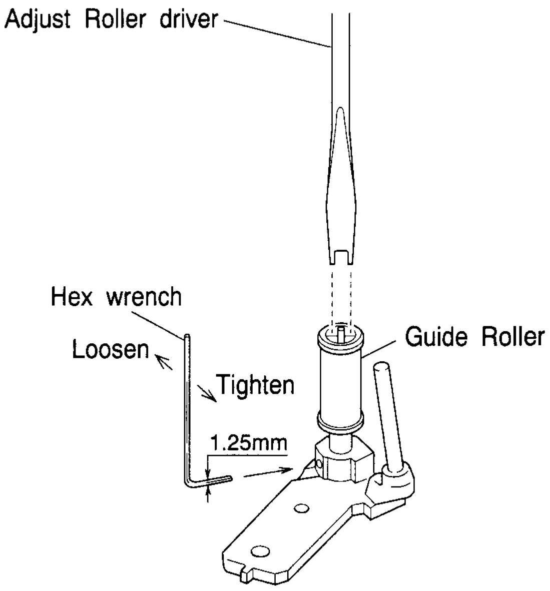


Fig. 2-7-2

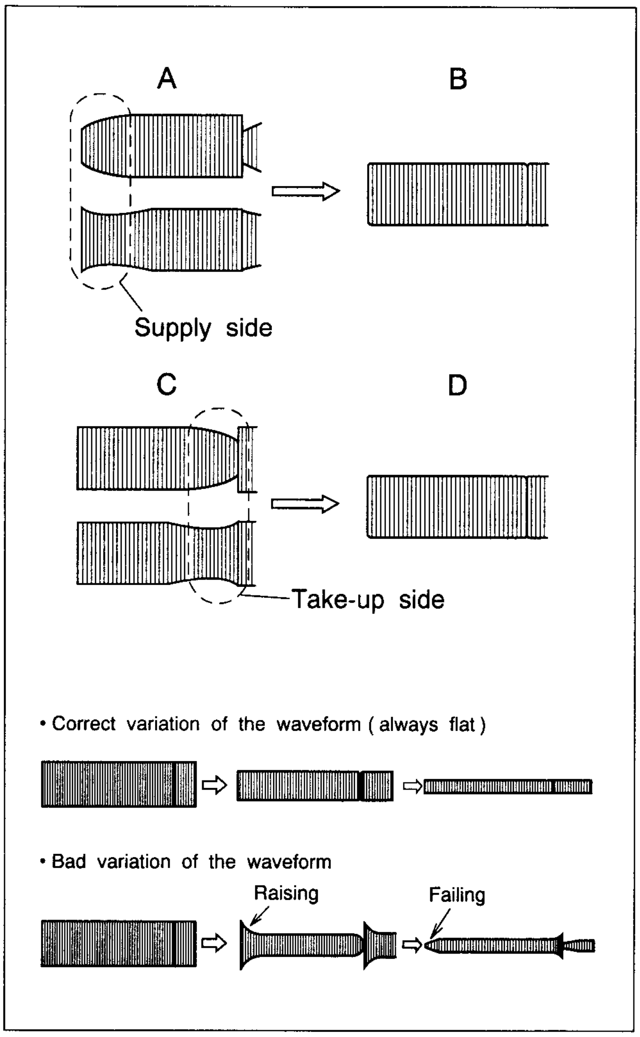

A
B
Supply side
C
D
Take-up side
• Correct variation of the waveform (always flat)
• Bad variation of the waveform
Raising
Failing

Fig. 2-7-3

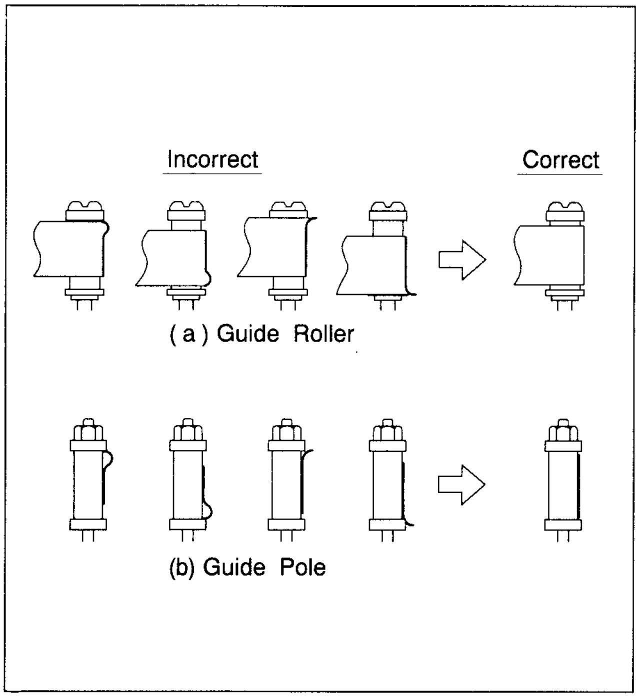

Incorrect
Correct
(a) Guide Roller
(b) Guide Pole

Fig. 2-7-4

2.7.2 A/C head height & azimuth

NOTE :
- *Temporarily set A/C head height as indicated in Fig. 2-5-4.*
- *Use spare tape to check the transport and confirm the tape is not scratched or damaged.*

1. Tilt

(1) Use spare tape and set for playback.
(2) Turn screw (3) clockwise to where the tape curls just slightly at the TU guide pole bottom flange as shown in Fig.2-7-5.
(3) Then slowly turn screw (3) counterclockwise to where the curling ceases.

2. Height

(1) Connect CH-1 of a dual trace oscilloscope to Audio Out.
(2) Connect CH-2 to TP401(CTL PULSE) of the Main board assy and use the ALT mode.
(3) Playback the SP stairstep portion of the alignment tape [MHPE].
(4) Adjust screws (1),(2) and (3) for maximum audio output and control pulse level.

3. Azimuth

(1) Connect the oscilloscope to Audio Out.
(2) Playback the SP stairstep portion of the alignment tape [MHPE].
(3) Adjust screw (2) so that the audio output is both maximum and with minimum fluctuation.

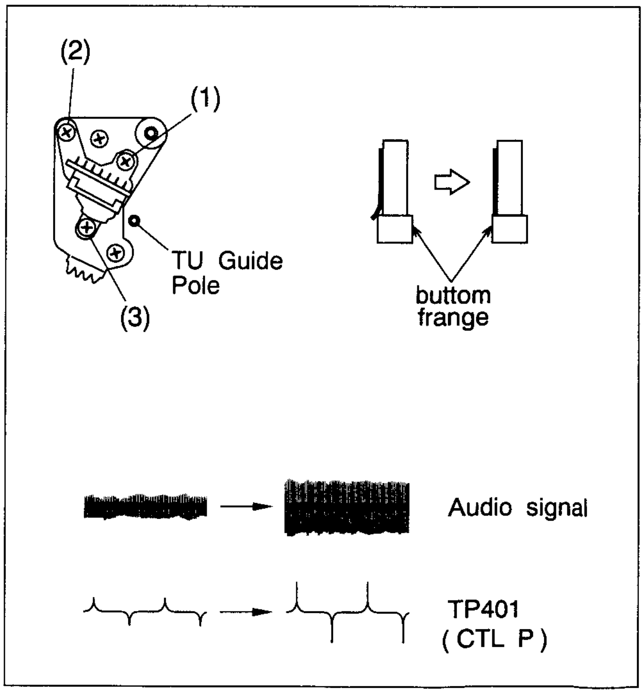

(2)
(1)
TU Guide Pole
(3)
buttom frange
Audio signal
TP401
(CTL P)

Fig. 2-7-5

2.7.3 A/C head phase(X-value)

(1) Connect the oscilloscope to TP6(PB FM) on the PRE/REC board.Use TP11(D.FF) on the PRE/REC board as a trigger.

(2) Playback the SP stairstep portion of the alignment tape [MHPE].

(3) Set the neutral manual tracking position by pressing the **///** button on the remote controller or TV PROG "-" and "+" buttons simultaneously.

(4) If adjustment is required,slightly loosen screws (4) and (5). Set A/C head positioning tool on the A/C head adjusting boss as indicated in Fig.2-7-6.

(5) Turn the tool first to position the A/C head fully toward the capstan. Then gradually return it toward the drum and stop at the position of maximum FM waveform output level as shown in Fig.2-7-7.

(6) Tighten screw (5). Remove the tool and tighten screw (4).

(7) Eject the SP alighnment tape [MHPE] and then re-insert the LP alignment tape [MHPE-L].

(8) Playback the LP stairstep portion of the alignment tape [MHPE-L].

(9) Set the neutral manual tracking position by pressing the **///**button on the remote controller or TV PROG "-" and "+" buttons simultaneously.

(10) Confirm maximum playback FM waveform output level as shown in Fig.2-7-7.

(11) If not maximum,slightly loosen the screws (4) and (5). Use the tool and adjust the head position for the nearest maximum point. Then tighten screws (4) and (5).

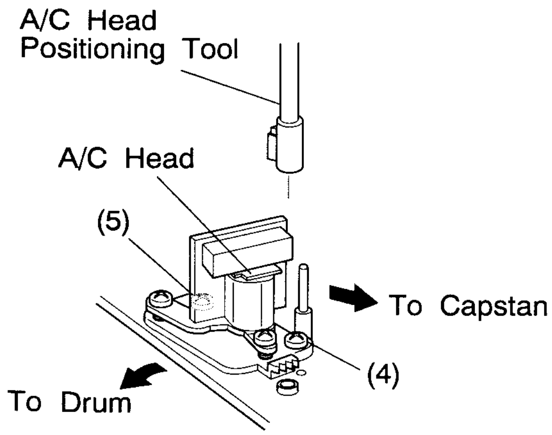


Fig. 2-7-6

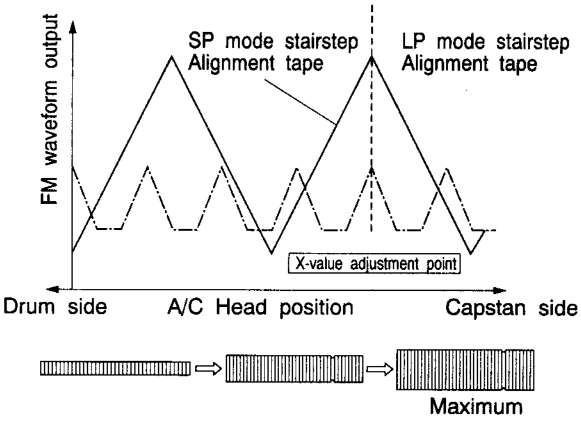


Fig. 2-7-7

2.7.4 LP mode auto tracking

NOTE : *Set VCR to the mode A by remote controller.*

(1) Playback the LP stairstep portion of the alignment tape [MHPE-L].

(2) Confirm that the Automatic tracking indication[AT]stops flashing and remains on.

(3) Press the "D" button on the presetting unit[PTU94008] to turn off the Automatic tracking indication[AT].

(4) Press the "D" button again to change the mode to the LP interchangeability adjustment mode and confirm that Automatic tracking indication[AT] stops flashing and goes off.

(5) If the alignment tape ejects automatically, repeat the A/C head phase adjustment(X-value).

2.7.5 Tension pole position

(1) Set for playback mode using MECHANISM SERVICE MODE(See SECTION 1 DISASSEMBLY).
(2) Slightly loosen the screw (A) .
(3) Turn the adjust pin so that the tension arm assy does not touch ϕ2.5 pole on the outside.
(4) Tighten the screw (A).
(5) After adjustment,use the back tension cassette gauge and set for the playback mode.
(6) Confirm reading of 29 to 46 g•cm.

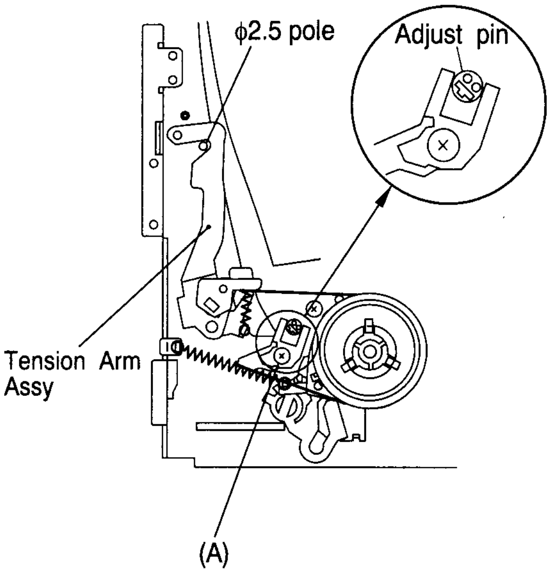


Fig. 2-7-8

2.7.6 Take-up torque

(1) Use the back tension cassette gauge and set for the playback mode.
(2) Confirm reading of 60 to 100 g•cm.

SECTION 3
ELECTRICAL ADJUSTMENT

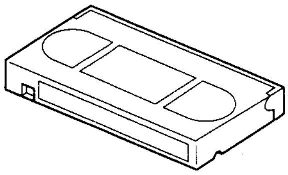
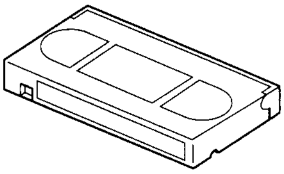
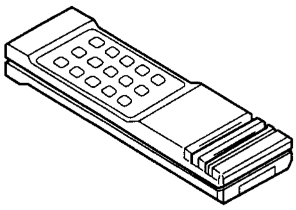
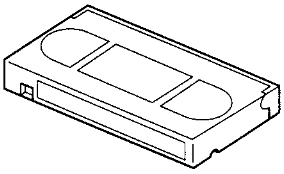
3.1 PRECAUTION

Electrical adjustment are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also do not attempt these adjustments unless the proper equipments is available.

3.1.1 Required test equipment

① Colour television or monitor
② Oscilloscope: wide-band,dual-trace,triggered delayed sweep
③ Frequency counter
④ Digital voltmeter
⑤ Signal generator: RF/IF sweep/marker
⑥ Signal generator: PAL colour bar, stairstep
⑦ Recording tape
⑧ Numeric-key remote controller(provided)

3.1.2 Required adjustment tools

Alignment tape (SP,stairstep) MHPE	Alignment tape (SP,colour bar) MHVE-2
	
Presetting unit PTU94008	Alignment tape (S-VHS SP/LP colour bar) MH-2H
	

3.1.3 Colour bar signal,colour bar pattern

- Colour bar signal

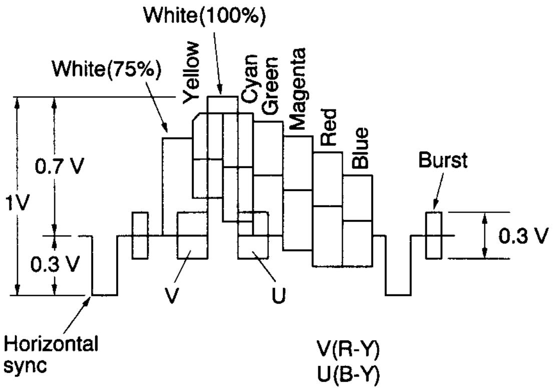

White(100%)
White(75%)
Yellow
Cyan
Green
Magenta
Red
Blue
Burst
0.7 V
1V
0.3 V
0.3 V
V
U
Horizontal sync
V(R-Y)
U(B-Y)

Fig.3-1-1 Colour bar signal waveform

- Colour bar pattern

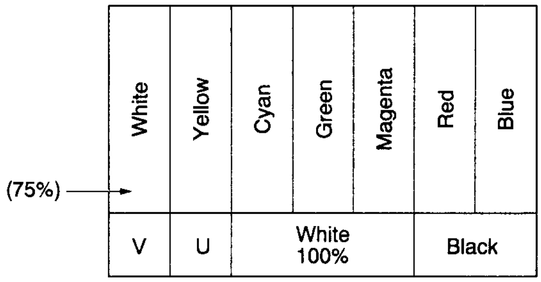

White
Yellow
Cyan
Green
Magenta
Red
Blue
(75%)
V
U
White 100%
Black

Fig.3-1-2 Colour bar pattern

3.2 SWITCHING REGULATOR CIRCUIT

Note: • *Unless otherwise specified, all measurement points and adjustment parts are located on the MAIN BOARD.*

3.2.1 5V DC output voltage

Signal	• AUX • TUNER
Mode	• REC : SP
Equipment	• Digital voltmeter
Measurement point	• CN206-pin16 (SWD 5V)
Adjustment part	• R862 (SWD 5V)
Specification	• 5.22 ± 0.10V DC

(1) Connect a digital voltmeter to CN206-pin16 and GND.
(2) Adjust R862 for 5.22 ± 0.10V DC.

3.3 SERVO CIRCUIT

Notes: • *Unless otherwise specified,all measurement point and adjustment parts are located on the MAIN BOARD.*
• *Set VCR to the mode A by remote controller.*
• *Use only buttons "E" and "F", depressing other buttons during adjustment may cause adjustment errors.*

3.3.1 PB switching point

Signal	• Alignment tape [MHPE],Stairstep
Mode	• PB,Automatic tracking OFF
Equipment	• Oscilloscope
Measurement point	•TP3(V.OUT) [TERMINAL board]
Trigger slope (-)	• TP11(DRUM FF) , [PRE/REC BOARD]
Adjustment tool	• Presetting unit [PTU94008]
Specification	• 6.5 ± 0.5H

(1) Connect an oscilloscope to TP3 and external trigger from TP11 (negative slope).
(2) Playback the stairstep signal of the alignment tape.
(3) Set the tracking control to the centre position by pressing the *///* button of the remote controller.
(4) Adjust by pressing "E" or "F" buttons of presetting unit for position the trigger point 6.5 ± 0.5 H from V.sync.
(5) Depress the STOP button.

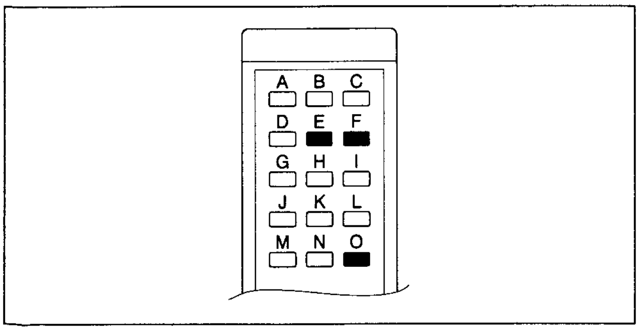


Fig.3-3-1 Presetting unit

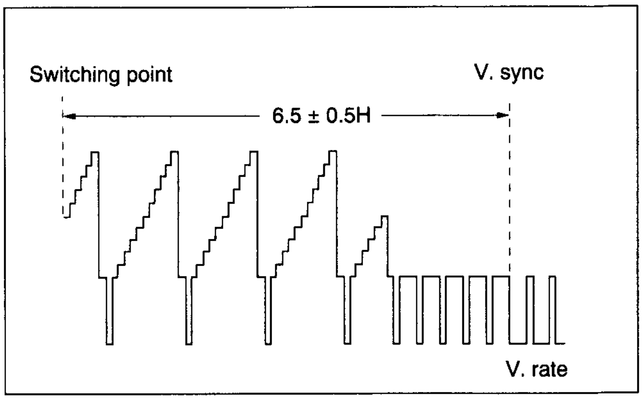


Fig.3-3-2 PB switching point

Alternate method

(1) Playback the stairstep signal of the alignment tape.
(2) Press the "O" button of the presetting unit.
(3) Confirm that VCR mode becomes STOP mode.

3.3.2 Slow tracking preset

Signal	• Tuner or colour bar
Mode	• SP/LP, REC → PB(SLOW)
Equipment	• TV-Monitor
Adjustment tool	• Presetting unit [PTU94008]
Specification	• Minimum noise

Notes: • *Set VCR to the mode A by remote controller.*
• *Use only buttons "B" and "C", depressing other buttons during adjustment may cause adjustment errors.*

(1) Record a colour bar signal in the SP mode.
(2) Playback recorded signal on the FWD slow mode.
(3) Observe the display on the TV monitor and adjust for optimum noise condition (best tracking) by depressing "B " or "C " buttons of the presetting unit.
(4) Depress the STOP button.
(5) Confirm that the bar noise is not visible on the TV monitor in the slow mode.
(6) Repeat steps (2) to (5) in REV slow mode.
(7) Repeat steps (1) to (6) in LP mode.

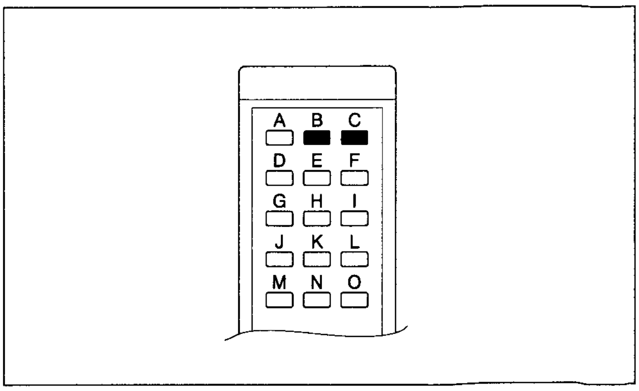


Fig.3-3-3 Presetting unit

3.4 VIDEO CIRCUIT

Notes:
- *Unless otherwise specified,all measurement point and adjustment parts are located on the MAIN BOARD.*
- *VIDEO circuit adjustments are performed by the EVR system by use of the presetting unit and numeric-key remote controller.*
- *S-INPUT means Y/C separated video signal in the chart.*
- *Set VCR to the mode A by remote controller.*
- *Set DYNAMIC CONTRAST to off mode.*

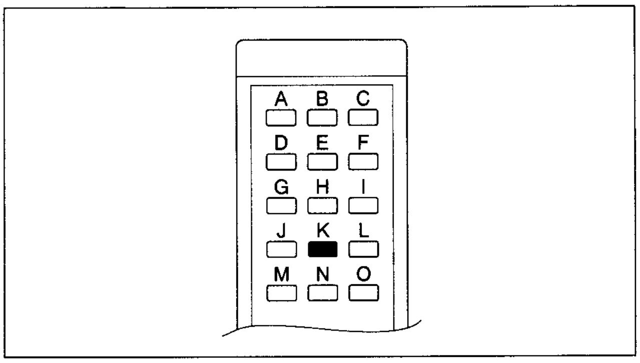


Fig.3-4-1 Presetting unit

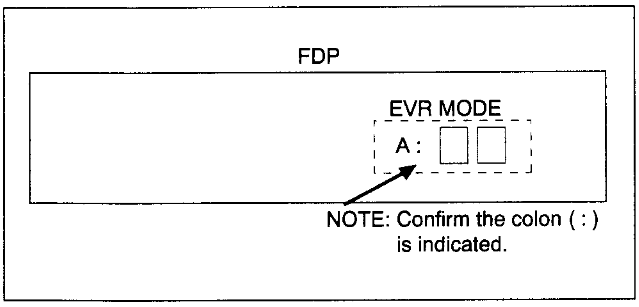


Fig.3-4-2 EVR mode

3.4.1 AGC Y LEVEL

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP3 (V.OUT) [TERMINAL board]
Adjustment tool	• Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 11
Specification	• 1.00 ± 0.03Vp-p (terminated)

(1) Connect an oscilloscope to TP3.
(2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
(3) Set "A : 11" pressing 1 numeric key twice of the remote controller.
(4) Adjust TV PROG "–" or "+" button for 1.00 ± 0.03 Vp-p.
(5) Set normal VCR mode by pressing "K" button of the presetting unit again so adjustment data is memorized.

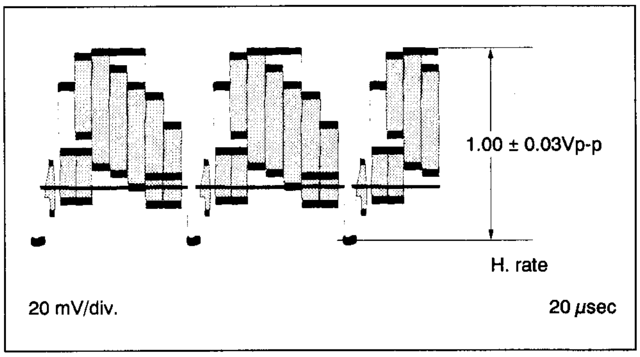


Fig. 3-4-3 EE Y level

3.4.2 WHITE/DARK CLIP (S-VHS/VHS)

Signal	• Colour bar
Mode	• EE • S-VHS/VHS
Equipment	• Oscilloscope
Measurement point	• TP205 (W/D CHECK)
Adjustment tool	• Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 14
Specification	• WHITE CLIP : 110 ± 4%(S-VHS) 90 ± 4%(VHS) DARK CLIP : 70 ± 8%(S-VHS) 45 ± 8%(VHS)

(1) Connect an oscilloscope to TP205.
(2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
(3) Set "A : 14" pressing 1 and 4 numeric keys of the remote controller.
(4) Adjust TV PROG "–" or "+" button for 110 ± 4%(S-VHS), 90 ± 4%(VHS) white clip and 70 ± 8%(S-VHS), 45 ± 8%(VHS) dark clip as shown in Fig.3-4-4.
(5) Set normal VCR mode by pressing "K" button of the presetting unit again so adjustment data is memorized.

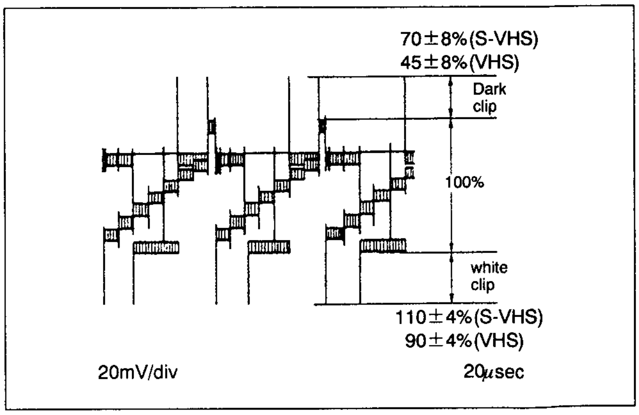


Fig.3-4-4 White/dark clip

3.4.3 SUB EMPHASIS INPUT LEVEL

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP206 (SUB EMP CHECK)
Adjustment tool	• Presetting unit [PTU94008] •Numeric-key remote controller
EVR mode	•A : 15
Specification	•400 ± 20 mVp-p

(1) Connect an oscilloscope to TP206.
(2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
(3) Set "A : 15" pressing 1 and 5 numeric keys of the remote controller.
(4) Adjust TV PROG "–" or "+" button of the remote controller for 400 ± 20 mVp-p.
(5) Set normal VCR mode by pressing "K" button of the presetting unit again so adjustment data is memorized.

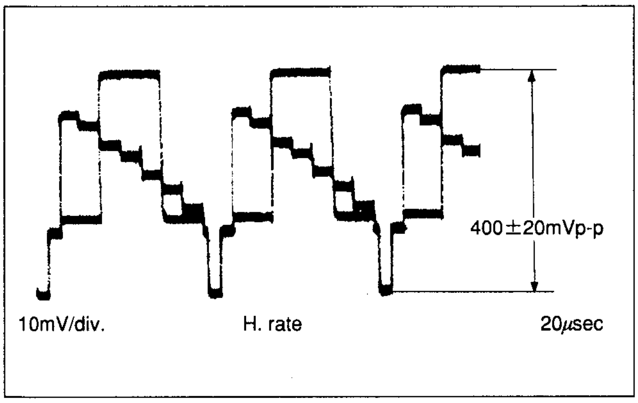


Fig. 3-4-5 Sub emphasis input level

3.4.4 PB Y LEVEL (S-VHS/VHS)

Signal	• Alignment tape [MHVE-2, MH-2H], • Colour bar
Mode	• PB
Equipment	• Oscilloscope
Measurement point	• TP3(V,OUT) [TERMINAL board]
Adjustment tool	• Presetting unit [PTU94008] •Numeric-key remote controller
EVR mode	•A : 11
Specification	•1.00 ± 0.03Vp-p (terminated)

(1) Connect an oscilloscope to TP3.
(2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
(3) Set "A : 11" pressing 1 numeric key twice of the remote controller.
(4) Playback the color bar signal of the alignment tape. (MH-2H and MHVE-2)
(5) Adjust TV PROG "–" or "+" button for 1.00 ± 0.03Vp-p as shown in Fig.3-4-6.
(6) Set normal VCR mode by pressing "K" button of the presetting unit again so adjustment data is memorized.

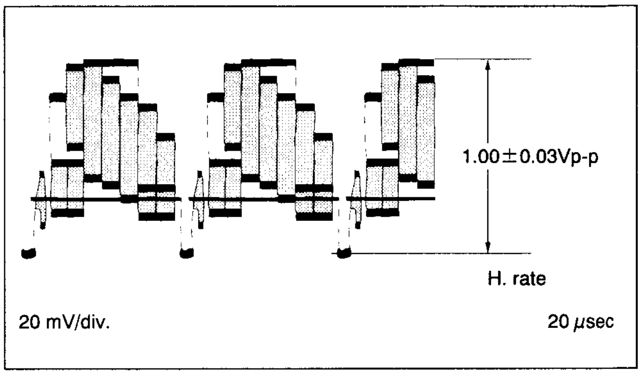


Fig.3-4-6 PB Y level

3.4.5 SP/LP REC COLOUR LEVEL

Signal	• Alignment tape [MH-2H] Colour bar
Mode	• PB (SP/LP) • REC → PB : SP/LP • S-VHS
Equipment	• Oscilloscope
Measurement point	• PB colour out
Trigger slope (–)	• TP11 (DRUM FF) [PRE/REC board]
Adjustment tool	• Presetting unit [PTU94008] •Numeric-key remote controller
EVR mode	•A : 2
Specification	•"B" x 130 ± 5% : SP •"B" x 100 ± 5% : LP

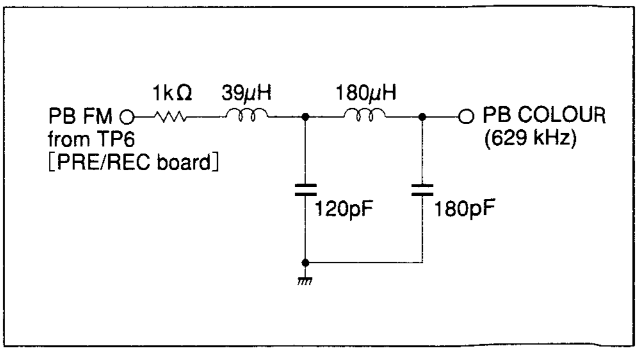


Fig. 3-4-7 LPF

(1) Use a LPF as shown in Fig. 3-4-7.
(2) Playback the SP (LP) colour bar signal of MH-2H alignment tape.
(3) Set the tracking to the Auto tracking off position by pressing the **///** button of the remote controller.
(4) Adjust by pressing the TV PROG "–" or "+" buttons of the remote controller for maximum level of the colour waveform and make a note of the higher colour level "B".
(5) Press the STOP/EJECT button and eject the MH-2H alignment tape.
(6) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
(7) Set "A : 2" by pressing 2 numeric key of the remote controller.
(8) Record a colour bar signal in SP (LP) mode, and playback recorded colour bar signal.
(9) Before recording, adjust TV PROG "–" or "+" button of the remote controller so that the higher level channel becomes 130 ± 5% : SP (100 ± 5% : LP) of the note "B" level during playback as shown in Fig. 3-4-8.
(10) Set normal VCR mode by pressing "K" button again so adjustment data is memorized.

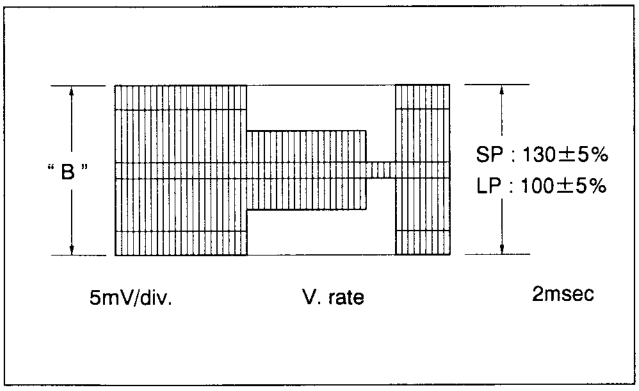


Fig. 3-4-8 REC colour level

3.4.6 S-VHS VIDEO EQ

Signal	• S INPUT • Video sweep
Mode	• SP/LP • REC (IMAGE CONTROL SW : NORMAL) • PB (IMAGE CONTROL SW : EDIT) • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP1 (Y.OUT) [TERMINAL BOARD]
Adjustment prat	• R113 (S-SP VIDEO EQ) [PRE/REC board] • R114 (S-EP VIDEO EQ) [PRE/REC board]
Specification	• 3.6 ± 0.2 scale R113 : SP • 2.8 ± 0.2 scale R114 : LP

(1) Connect an oscilloscope to TP1.
(2) Record a video sweep signal in S-VHS SP mode, then play it back.
(3) If the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, adjust R113 so that 3.58 MHz marker level becomes 3.6 ± 0.2 scale divisions.
(4) Record a video sweep signal in S-VHS LP mode, then play it back.
(5) If the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, adjust R114 so that 3.58 MHz marker level becomes 2.8 ± 0.2 scale divisions.

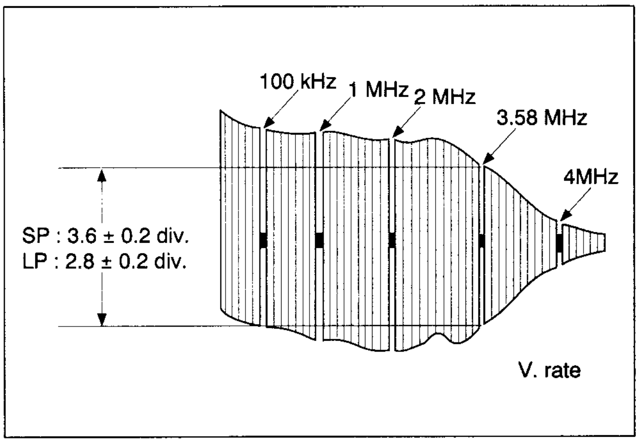


Fig. 3-4-9 S-VHS VIDEO EQ

Alternate method

(1) Record a colour bar signal in S-VHS SP mode,
(2) Play it back to observe the picture and adjust R113 for best resolution, without impaired S/N.
(3) So after adjustment, confirm black or white spot.
(4) Record a colour bar signal in S-VHS LP mode.
(5) Play it back to observe the picture and adjust R114 for best resolution, without impaired S/N.
(6) So after adjustment, confirm black or white spot.

3.4.7 PILOT BURST LEVEL

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• CN203 pin 4
Adjustment tool	• Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 16
Specification	• Equal level

(1) Connect an oscilloscope to pin 4 of CN203.
(2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
(3) Set "A : 16" by press 1 and 6 numeric keys of the remote controller.
(4) Adjust TV PROG "–" or "+" button of the remote controller for equal pilot burst level.
(5) Set normal VCR mode by pressing "K" button again so adjustment data is memorized.

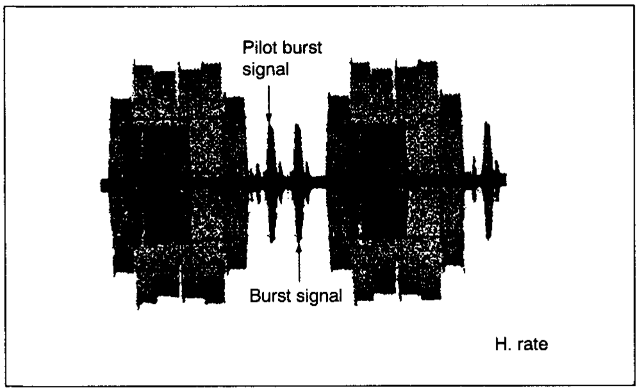


Fig. 3-4-10 Pilot burst level

3.5 SYSCON CIRCUIT

Notes: • *Unless otherwise specified,all measurement point and adjustment parts are located on the MAIN BOARD.*

• *When performing this adjustment,remove the MECHANISM assy.*

3.5.1 TIMER CLOCK

Signal	• No signal
Mode	• EE
Equipment	• Frequency counter
Measurement point	• IC601 pin 64
Adjustment part	• C601 (TIMER CLOCK)
Specification	• 1024.008 ± 0.001 Hz [976.5549 ± 0.0010 usec]

(1) Connect the frequency counter to IC601 pin 64 and GND.
(2) Connect the short wire between IC601 pin 33 and IC601 pin 63.
(3) Short the leads of capacitor C604 once in order to reset IC601.
(4) Disconnect the short wire then connect it again quickly.
(5) Adjust C601 for 1024.008 ± 0.001 Hz.
(976.5549 ± 0.0010 usec)

3.6 AUDIO CIRCUIT

Note: *Unless otherwise specified, all measurement point and adjustment parts are located on the PRE/REC BOARD.*

3.6.1 AUDIO REC FM

Signal	• AUX • VIDEO : Colour bar • Audio : No signal
Mode	• REC → PB : LP • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP53 (A. PB FM)
Trigger slope (–)	• TP11 (DRUM FF)
Adjustment part	• R216 (A. REC FM LEVEL)
Specification	• 90 ± 10 mVp-p

(1) Connect an oscilloscope to TP53.
(2) Record a colour bar signal without an audio signal in S-VHS LP mode then playback.
(3) Adjust R216 for 90 mVp-p playback level of higher channel level before recording.
(4) Confirm that the lower channel level is more than 60 mVp-p.

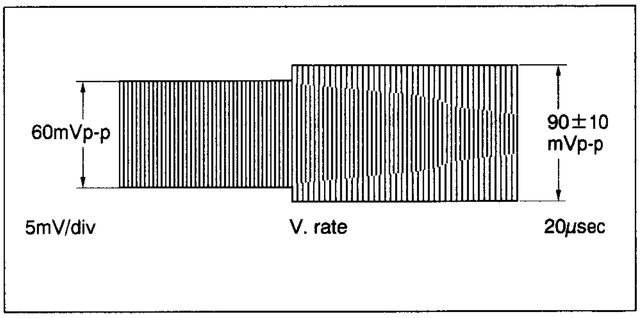


Fig. 3-6-1 Audio REC FM level

3.7 TUNER CIRCUIT

Note: *Unless otherwise specified, all measurement point and adjustment parts are located on the IF UNIT.*

3.7.1 RF VCO

Signal	• TV broadcasting
Mode	• Tuner
Equipment	• TV monitor
Measurement point	• IF UNIT
Adjustment tool	• IF VR
Specification	• Minimum noise

Note: *Adjust IF VR (RF AGC) to correct for excess noise in the picture or when streaks cross interference occurs due to strong electrical fields.*

(1) Adjust IF VR to minimize noise or streaks on the TV screen.
(2) Adjust for noisy picture with strong signal. Then adjust until noise just disappears. Select other channels to confirm proper pick-up of channels.

3.8 Y/C SEP CIRCUIT

Note: *Unless otherwise specified, all measurement point and adjustment parts are located on the Y/C SEP BOARD.*

3.8.1 DIGITAL I/O LEVEL

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP207 (Y/V To SEP) • TP208 (SEPAD Y1) [MAIN board]
Adjustment part	• R68 (DIGITAL I/O LEVEL)
Specification	• Equal level

(1) Connect the channel (CH-1) of a dual trace oscilloscope to TP207 and the other channel (CH-2) to TP208.
(2) Set the oscilloscope for DUAL mode, and overlap the waveform.
(3) Adjust R68 for equal Y levels.

3.9 DEMODULATOR CIRCUIT

Note: *Unless otherwise specified, all measurement points and adjustment parts are located on the DEMODULATOR BOARD.*

3.9.1 STEREO SEPARATION

Signal	• Sweep generator output (90 dBμ, 1 kHz)
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• IC101-pin48 [MAIN board]
Adjustment part	• R45 (SEPARATION) [HR-S7000EH] • R1145 (SEPARATION) [HR-S7000EG] [MAIN board]
Specification	• Minimum

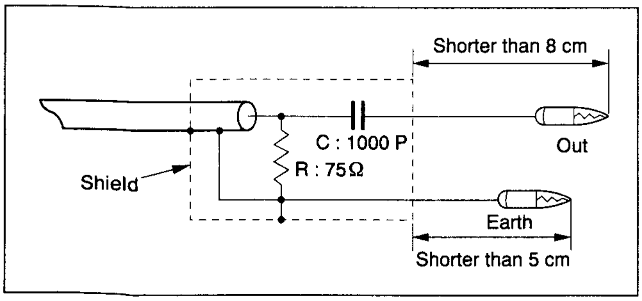


Fig. 3-9-1 Sweeper probe

(1) Use a sweeper probe as shown in Fig. 3-9-1.
(2) Supply 1 kHz R-only modulated IF signal to IF terminal of U/V tuner (front end).
(3) Connect an oscilloscope to IC101-pin48.
(4) Adjust R45(R1145) for minimum output level.

SECTION 4
CHARTS AND DIAGRAMS

SCHEMATIC DIAGRAM NOTES

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufactures recommended parts.

1. Schematic diagram values

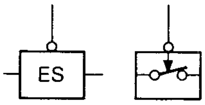
Unless otherwise specified.

1) All resistance values are in ohms. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in µF, (P: PF).
3) All inductance values in µH, (m: mH).
4) All diodes are 1SS133 or MA165, (refer to parts list).

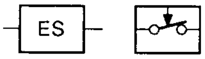
2. Indications

AUX : Active only at high.

$\overline{\text{AUX}}$: Active only at low.

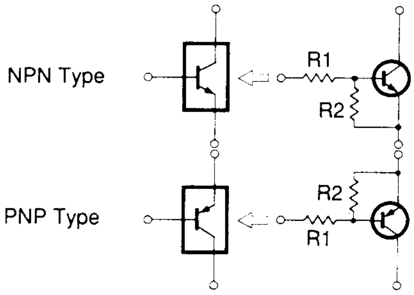


Active only at low for electronic switch.

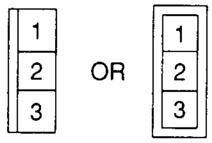


Active only at high for electronic switch.

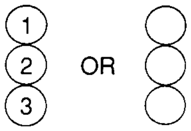
Digital transistor :
The digital transistor includes built in resistors.
It features small size and high reliability.



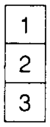
3. Interpreting Connector indications



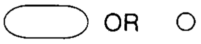
Removable connector



Direct connection on board



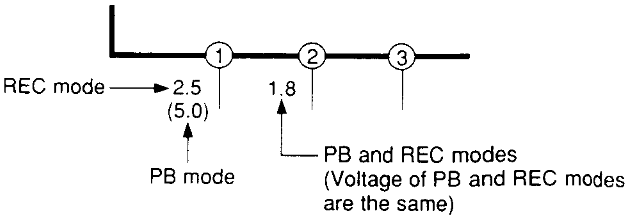
Non-removable Board connector



Connected pattern on board

4. Voltage measurement

1) Video circuits
   REC: Colour bar signal in SP mode, normal VHS mode.
   PB : Alignment tape, colour bar SP mode, normal VHS mode.
   — : Unmeasurable or unnecessary to measure.
2) Audio circuits
   REC: 1KHz, –8 dBs sine wave signal in SP mode, Normal VHS mode.
   PB : REC then playback it.
3) Movie Camera circuits
   Measured using a correctly illuminated grey scale or colour bar test charts in the E-E mode.
4) Indication on schematic diagram
   Voltage Indications for REC and PB modes on the schematic diagram are as shown below.



Note: If do not indicate for voltage measurement on the schematic diagram, refer to the voltage charts.

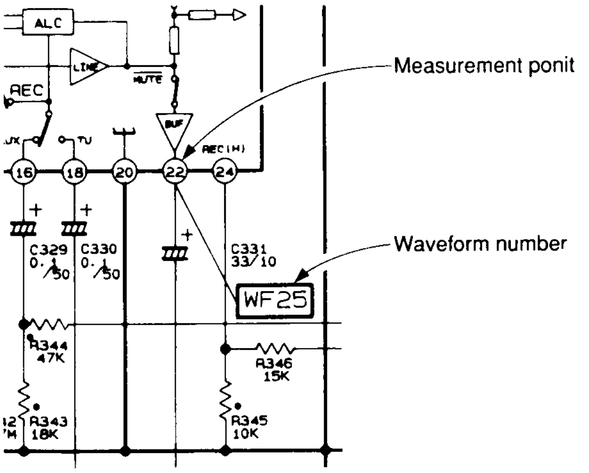
5. **Waveform measurement**

1) Video circuits
REC: Colour bar signal in SP mode, normal VHS mode.
PB : Alignment tape, colour bar SP mode, normal VHS mode.

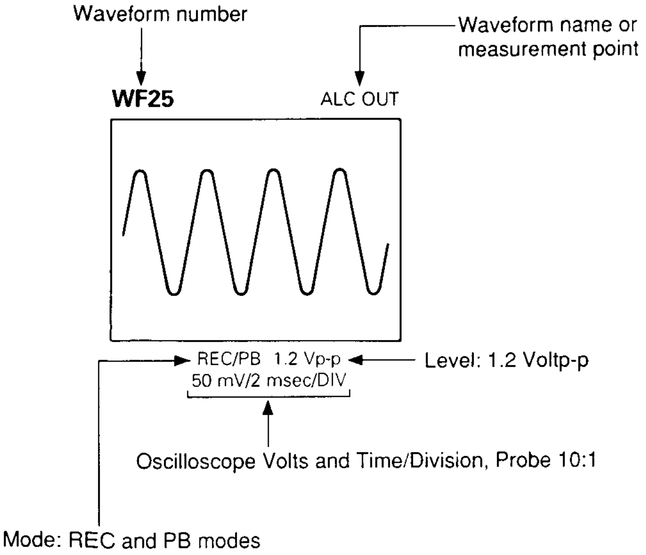
2) Audio circuits
REC: 1KHz, –8 dBs sine wave signal in SP mode, normal VHS mode.
PB : REC then playback it.

3) Movie Camera circuits
Measured using a correctly illuminated grey scale or colour bar test charts in the E-E mode.

4) Indication on schematic diagram
Waveform indications on the schematic diagram are as shown below.

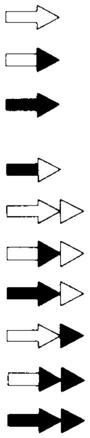

ALC
LIM
MUTE
REC
TU
BUF
REC(H)
16
18
20
22
24
C329 0.1/50
C330 0.1/50
C331 33/10
WF25
R344 47K
R346 15K
R343 18K
R345 10K
Measurement ponit
Waveform number

5) Waveform indications


Waveform number
Waveform name or measurement point
WF25
ALC OUT
REC/PB 1.2 Vp-p
50 mV/2 msec/DIV
Level: 1.2 Voltp-p
Oscilloscope Volts and Time/Division, Probe 10:1
Mode: REC and PB modes

6. **Signal path Symbols**

The arrows indicate the signal path as follows.



Playback signal path
Playback and recording signal path
Recording signal path (including E-E signal path)
Y signal path
Colour (Chroma) signal path
R or R-Y signal path
B or B-Y signal path
Capstan servo path
Drum servo path
Reel servo path

CIRCUIT BOARD NOTES

1. **Colour indications**

1) Foil side :
Foil side patterns are indicated at GREY shading.

2) Component side :
Component side patterns are indicated at RED shading.

2. **Foil and Component sides**

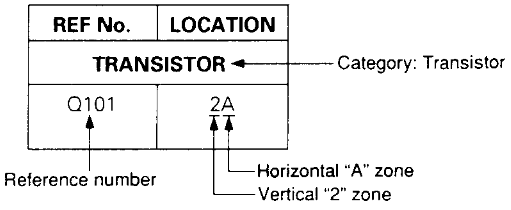
1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.

2) Component side (A side) :
Parts on the component side seen from component face (parts face) are indicated.

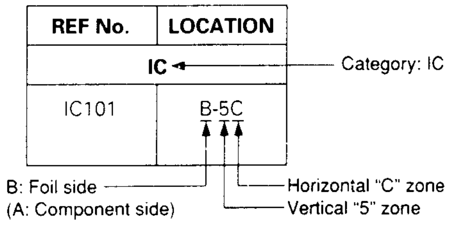
3. **Parts location guides**

Parts location are indicated by guide scale on the circuit board.

1) Signal pattern :


REF No.
LOCATION
TRANSISTOR
Category: Transistor
Q101
2A
Reference number
Horizontal "A" zone
Vertical "2" zone

2) Double pattern :

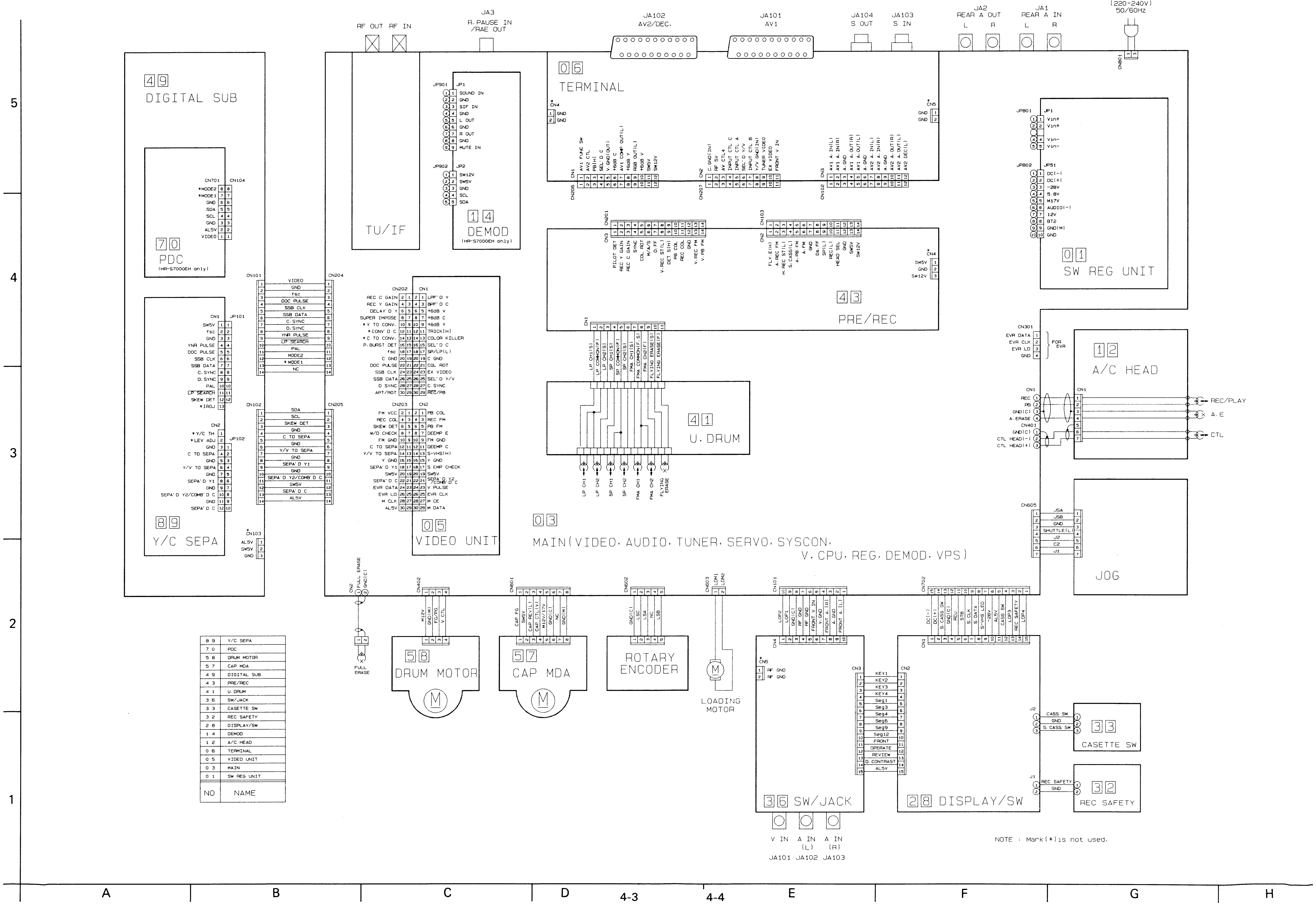

REF No.
LOCATION
IC
Category: IC
IC101
B-5C
B: Foil side
(A: Component side)
Horizontal "C" zone
Vertical "5" zone

Notes:

1) **For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).**

2) **For repairing SMC (Surface Mounted Components), please refer to the VIDEO SERVICE GUIDE No. VTS81001.**

4.1 BOARD INTERCONNECTIONS

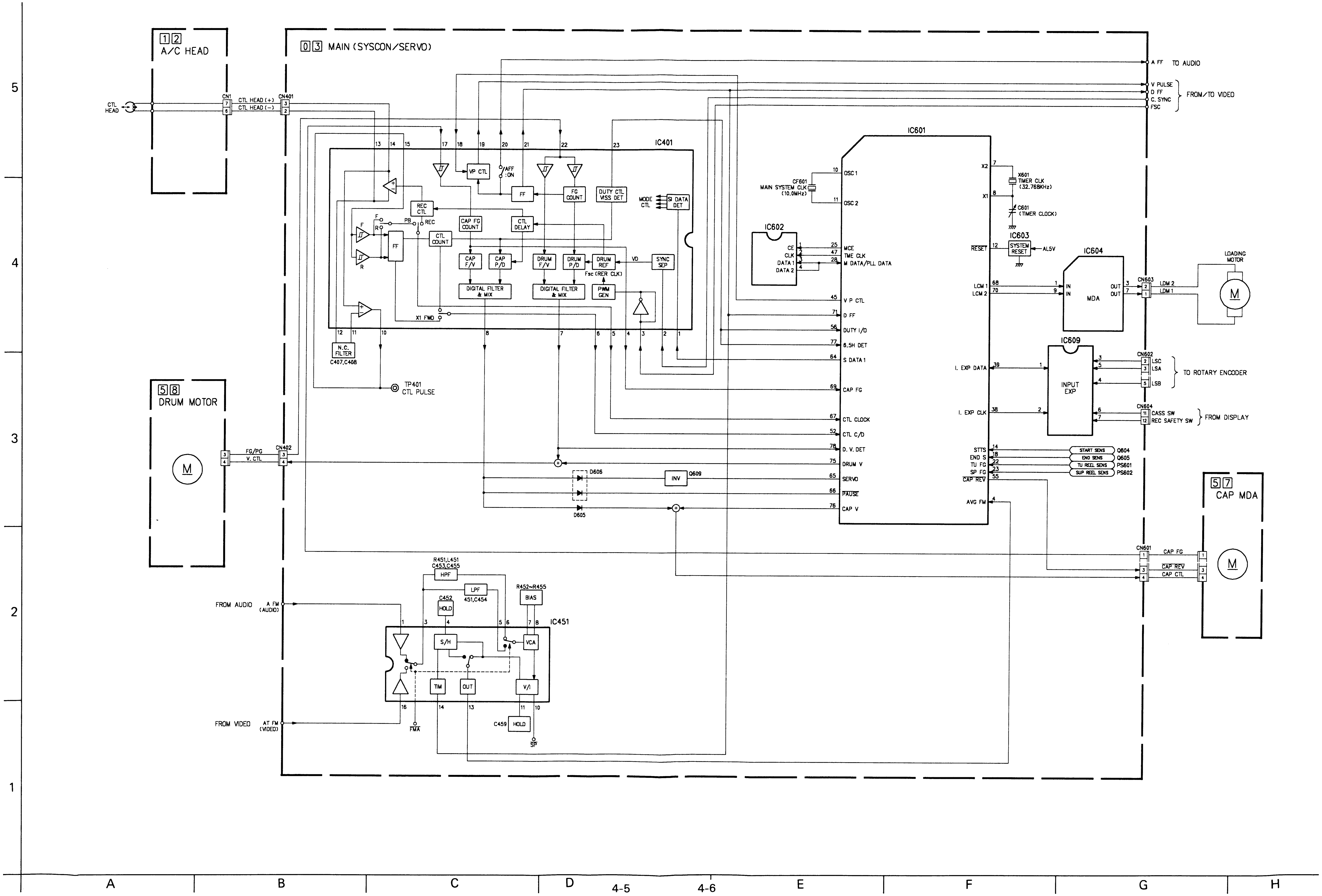


RF OUT
RF IN
JA3
R.PAUSE IN /RAE OUT
JA102 AV2/DEC.
JA101 AV1
JA104 S OUT
JA103 S IN
JA2 REAR A OUT L R
JA1 REAR A IN L R
AC IN (220-240V) 50/60Hz
CN801
49 DIGITAL SUB
70 PDC (HR-S7000EH only)
89 Y/C SEPA
TU/IF
14 DEMOD (HR-S7000EH only)
06 TERMINAL
01 SW REG UNIT
43 PRE/REC
05 VIDEO UNIT
41 U.DRUM
12 A/C HEAD
JOG
03 MAIN(VIDEO, AUDIO, TUNER, SERVO, SYSCON, V.CPU, REG, DEMOD, VPS)
58 DRUM MOTOR
57 CAP MDA
ROTARY ENCODER
LOADING MOTOR
FULL ERASE
36 SW/JACK
28 DISPLAY/SW
33 CASETTE SW
32 REC SAFETY
REC/PLAY
A.E
CTL
FOR EVR
LP CH1
LP CH2
SP CH1
SP CH2
FMA CH1
FMA CH2
FLYING ERASE
V IN
A IN (L)
A IN (R)
JA101
JA102
JA103
A
B
C
D
E
F
G
H
1
2
3
4
5

NO	NAME
8 9	Y/C SEPA
7 0	PDC
5 8	DRUM MOTOR
5 7	CAP MDA
4 9	DIGITAL SUB
4 3	PRE/REC
4 1	U.DRUM
3 6	SW/JACK
3 3	CASETTE SW
3 2	REC SAFETY
2 8	DISPLAY/SW
1 4	DEMOD
1 2	A/C HEAD
0 6	TERMINAL
0 5	VIDEO UNIT
0 3	MAIN
0 1	SW REG UNIT

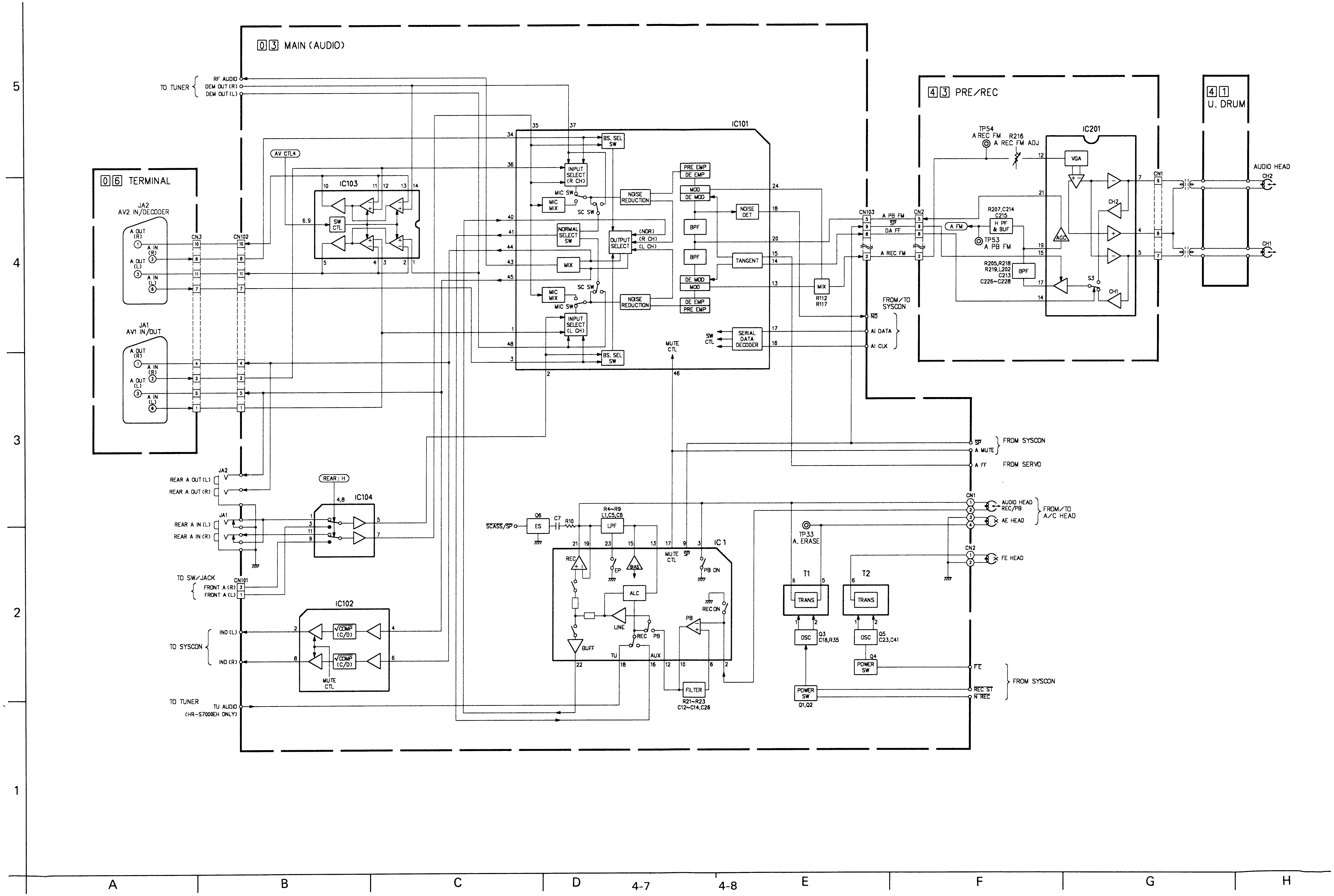
NOTE : Mark(*)is not used.

4.2 SYSCON/SERVO BLOCK DIAGRAM

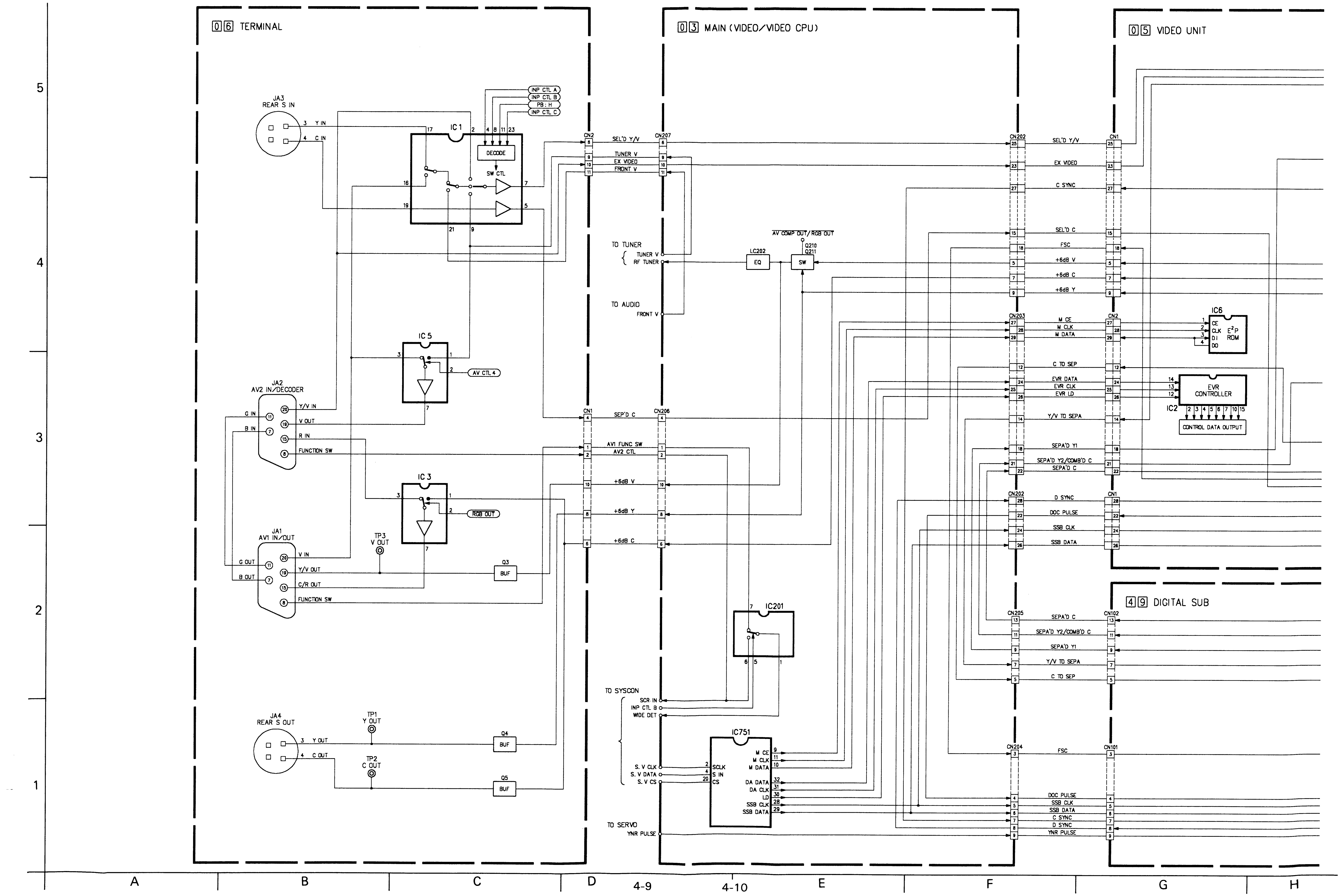


12 A/C HEAD
CTL HEAD
CN1
CTL HEAD (+)
CTL HEAD (−)
CN401
03 MAIN (SYSCON/SERVO)
IC401
VP CTL
AFF :ON
FF
FG COUNT
DUTY CTL VISS DET
MODE CTL
SI DATA DET
REC CTL
CAP FG COUNT
CTL DELAY
CTL COUNT
PB
REC
CAP F/V
CAP P/D
DRUM F/V
DRUM P/D
DRUM REF
VD
SYNC SEP
Fsc (RER CLK)
DIGITAL FILTER & MIX
DIGITAL FILTER & MIX
PWM GEN
X1 FWD
N.C. FILTER
C407,C408
TP401 CTL PULSE
58 DRUM MOTOR
M
FG/PG
V. CTL
CN402
D606
D605
INV
Q609
IC601
CF601 MAIN SYSTEM CLK (10.0MHz)
OSC 1
OSC 2
IC602
CE
CLK
DATA 1
DATA 2
MCE
TME CLK
M DATA/PLL DATA
V P CTL
D FF
DUTY I/O
6.5H DET
S DATA 1
CAP FG
CTL CLOCK
CTL C/D
D. V. DET
DRUM V
SERVO
PAUSE
CAP V
X2
X1
X601 TIMER CLK (32.768KHz)
C601 (TIMER CLOCK)
IC603
RESET
SYSTEM RESET
AL5V
LCM 1
LCM 2
IC604
IN
OUT
MDA
CN603
LDM 2
LDM 1
LOADING MOTOR
IC609
I. EXP DATA
I. EXP CLK
INPUT EXP
CN602
LSC
LSA
LSB
TO ROTARY ENCODER
CN604
CASS SW
REC SAFETY SW
FROM DISPLAY
STTS
END S
TU FG
SP FG
CAP REV
AVG FM
START SENS Q604
END SENS Q605
TU REEL SENS PS601
SUP REEL SENS PS602
A FF TO AUDIO
V PULSE
D FF
C. SYNC
FSC
FROM/TO VIDEO
57 CAP MDA
CN601
CAP FG
CAP REV
CAP CTL
M
R451,L451 C453,C455
HPF
LPF
451,C454
C452
HOLD
R452~R455
BIAS
IC451
S/H
VCA
TIM
OUT
V/I
C459 HOLD
FROM AUDIO
A FM (AUDIO)
FROM VIDEO
AT FM (VIDEO)
FMA
SP
5
4
3
2
1
A
B
C
D
E
F
G
H

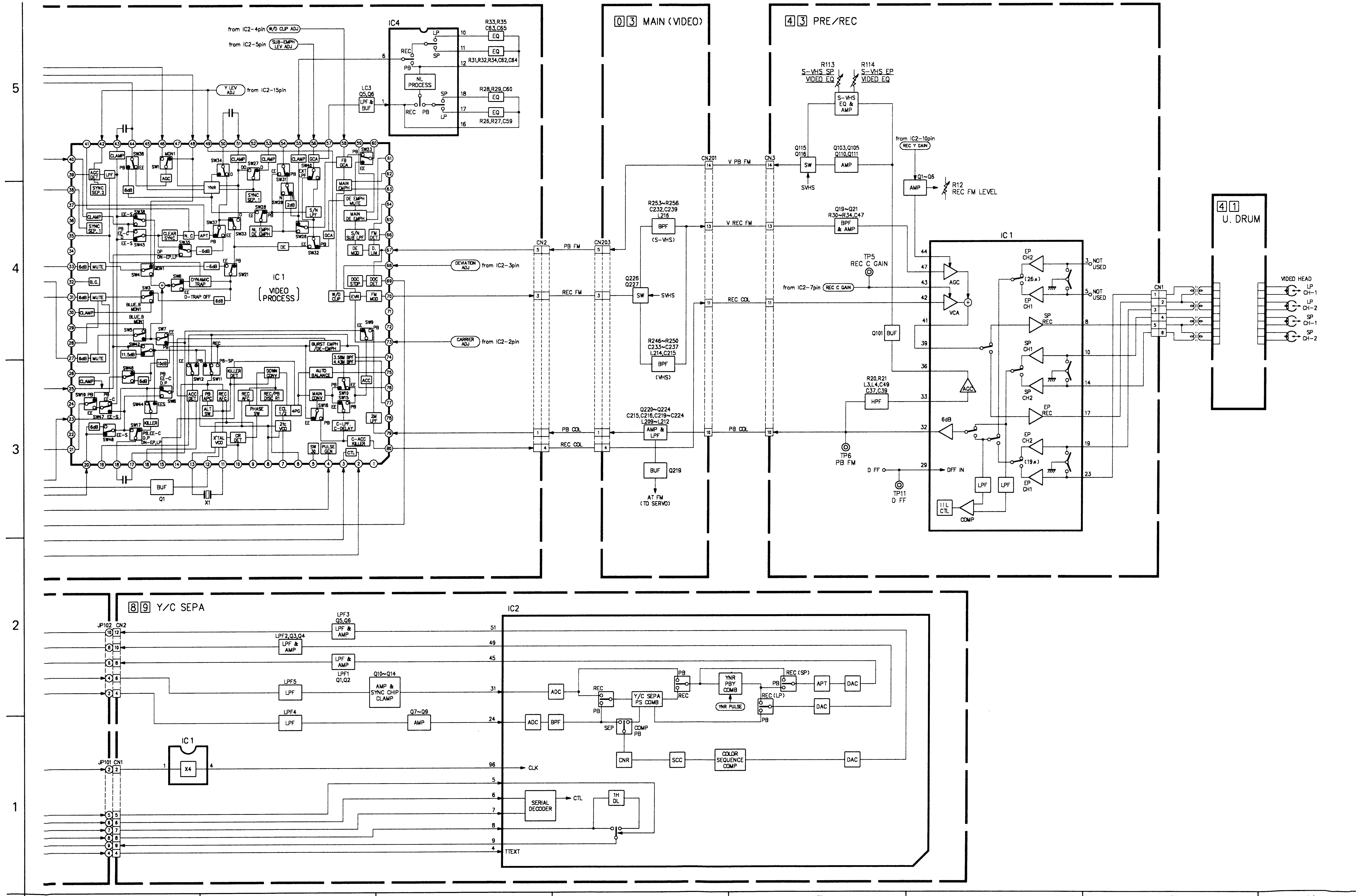
4.3 AUDIO BLOCK DIAGRAM


03 MAIN (AUDIO)
43 PRE/REC
41 U. DRUM
06 TERMINAL
TO TUNER
RF AUDIO
DEM OUT (R)
DEM OUT (L)
JA2
AV2 IN/DECODER
A OUT (R)
A IN (R)
A OUT (L)
A IN (L)
JA1
AV1 IN/OUT
CN3
CN102
AV CTL4
IC103
SW CTL
6.9
IC101
BS. SEL SW
INPUT SELECT (R CH)
INPUT SELECT (L CH)
MIC SW
SC SW
MIC MIX
NOISE REDUCTION
NORMAL SELECT SW
OUTPUT SELECT
(NOR)
(R CH)
(L CH)
MIX
PRE EMP
DE EMP
MOD
DE MOD
NOISE DET
BPF
TANGENT
SERIAL DATA DECODER
SW CTL
MUTE CTL
R112
R117
CN103
A PB FM
SP
DA FF
A REC FM
FROM/TO SYSCON
ND
AI DATA
AI CLK
CN2
TP54
A REC FM
R216
A REC FM ADJ
IC201
VGA
AGC
R207,C214
C215
H PF & BUF
A FM
TP53
A PB FM
R205,R218
R219,L202
C213
C226~C228
S3
CH1
CH2
CN1
AUDIO HEAD
FROM SYSCON
A MUTE
A FF
FROM SERVO
AUDIO HEAD REC/PB
AE HEAD
FROM/TO A/C HEAD
FE HEAD
REAR A OUT (L)
REAR A OUT (R)
REAR : H
IC104
4,8
REAR A IN (L)
REAR A IN (R)
TO SW/JACK
CN101
FRONT A (R)
FRONT A (L)
IC102
√COMP (C/D)
MUTE CTL
TO SYSCON
IND (L)
IND (R)
TO TUNER
TU AUDIO
(HR-S7000EH ONLY)
SCASS/SP
Q6
ES
C7
R10
R4~R9
L1,C5,C6
LPF
IC 1
REC
EP
BIAS
ALC
LINE
BUFF
PB ON
REC ON
PB
TU
AUX
FILTER
R21~R23
C12~C14,C26
TP33
A. ERASE
T1
T2
TRANS
OSC
Q3
C18,R35
Q5
C23,C41
Q4
POWER SW
Q1,Q2
FE
REC ST
N REC
A
B
C
D
E
F
G
H
1
2
3
4
5

4.4 VIDEO BLOCK DIAGRAM

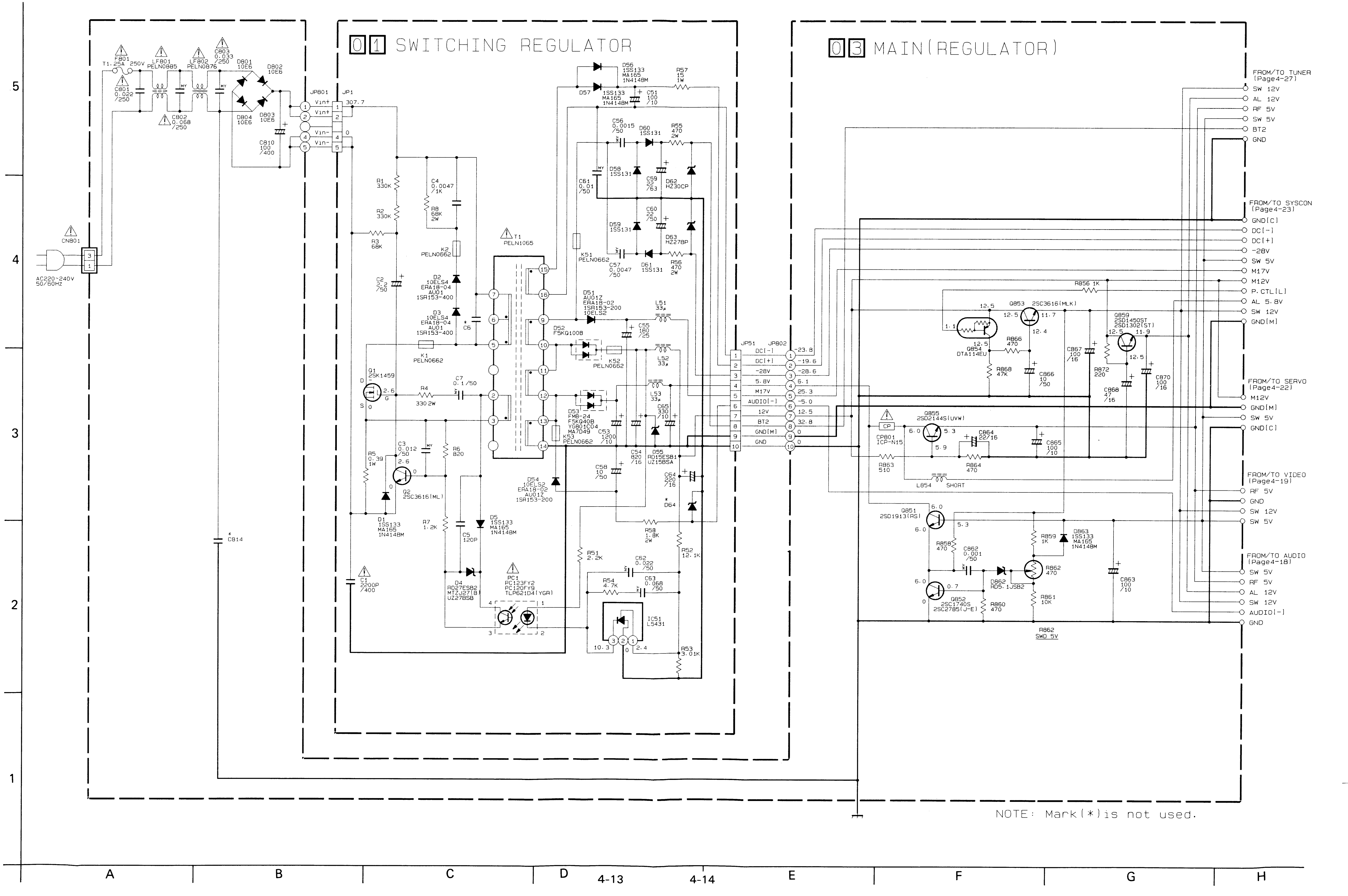


06 TERMINAL
03 MAIN (VIDEO/VIDEO CPU)
05 VIDEO UNIT
49 DIGITAL SUB
JA3 REAR S IN
Y IN
C IN
IC1
DECODE
SW CTL
INP CTL A
INP CTL B
PB : H
INP CTL C
IC5
AV CTL 4
JA2 AV2 IN/DECODER
G IN
B IN
Y/V IN
V OUT
R IN
FUNCTION SW
IC3
RGB OUT
JA1 AV1 IN/OUT
TP3 V OUT
V IN
G OUT
B OUT
Y/V OUT
C/R OUT
FUNCTION SW
Q3 BUF
JA4 REAR S OUT
TP1 Y OUT
TP2 C OUT
Y OUT
C OUT
Q4 BUF
Q5 BUF
CN2
SEL'D Y/V
TUNER V
EX VIDEO
FRONT V
CN207
CN1
SEP'D C
CN206
AV1 FUNC SW
AV2 CTL
+6dB V
+6dB Y
+6dB C
TO TUNER
TUNER V
RF TUNER
TO AUDIO
FRONT V
LC202 EQ
SW
AV COMP OUT/RGB OUT
Q210 Q211
IC201
TO SYSCON
SCR IN
INP CTL B
WIDE DET
S. V CLK
S. V DATA
S. V CS
IC751
SCLK
S IN
CS
M CE
M CLK
M DATA
DA DATA
DA CLK
LD
SSB CLK
SSB DATA
TO SERVO
YNR PULSE
CN202
CN1
SEL'D Y/V
EX VIDEO
C SYNC
SEL'D C
FSC
+6dB V
+6dB C
+6dB Y
CN203
CN2
M CE
M CLK
M DATA
IC6
CE
CLK
DI
DO
E²P ROM
C TO SEP
EVR DATA
EVR CLK
EVR LD
EVR CONTROLLER
IC2
CONTROL DATA OUTPUT
Y/V TO SEPA
SEPA'D Y1
SEPA'D Y2/COMB'D C
SEPA'D C
D SYNC
DOC PULSE
SSB CLK
SSB DATA
CN205
CN102
SEPA'D C
SEPA'D Y2/COMB'D C
SEPA'D Y1
Y/V TO SEPA
C TO SEP
CN204
CN101
FSC
DOC PULSE
SSB CLK
SSB DATA
C SYNC
D SYNC
YNR PULSE
A
B
C
D
E
F
G
H
1
2
3
4
5



IC4
IC 1 (VIDEO PROCESS)
0 3 MAIN (VIDEO)
4 3 PRE/REC
4 1 U. DRUM
8 9 Y/C SEPA
IC2
IC 1
from IC2-4pin W/D CLIP ADJ
from IC2-5pin SUB-EMPH LEV ADJ
Y LEV ADJ from IC2-15pin
LC3 Q5,Q6 LPF & BUF
NL PROCESS
R33,R35 C63,C65
R31,R32,R34,C62,C64
R28,R29,C60
R26,R27,C59
EQ
REC PB LP SP
DEVIATION ADJ from IC2-3pin
CARRIER ADJ from IC2-2pin
BUF Q1 X1
CN2 CN203 CN201 CN3
PB FM
REC FM
PB COL
REC COL
V PB FM
V REC FM
R253~R256 C232,C239 L216 BPF (S-VHS)
Q226 Q227 SW SVHS
R246~R250 C233~C237 L214,C215 BPF (VHS)
Q220~Q224 C215,C216,C219~C224 L209~L212 AMP & LPF
BUF Q219
AT FM (TO SERVO)
R113 S-VHS SP VIDEO EQ
R114 S-VHS EP VIDEO EQ
S-VHS EQ & AMP
Q115 Q116 SW SVHS
Q103,Q105 Q110,Q111 AMP
from IC2-10pin REC Y GAIN
Q1~Q6 AMP
R12 REC FM LEVEL
Q19~Q21 R30~R34,C47 BPF & AMP
TP5 REC C GAIN
from IC2-7pin REC C GAIN
Q101 BUF
R20,R21 L3,L4,C49 C37,C39 HPF
TP6 PB FM
D FF
TP11 D FF
AGC VCA
EP CH2 EP CH1 SP REC SP CH1 SP CH2 EP REC
NOT USED
6dB
DFF IN
LPF
1 1L CTL
COMP
CN1
VIDEO HEAD
LP CH-1
LP CH-2
SP CH-1
SP CH-2
JP102 CN2
JP101 CN1
LPF3 Q5,Q6 LPF & AMP
LPF2,Q3,Q4 LPF & AMP
LPF & AMP LPF1 Q1,Q2
LPF5 LPF
Q10~Q14 AMP & SYNC CHIP CLAMP
LPF4 LPF
Q7~Q9 AMP
X4
ADC BPF
Y/C SEPA PS COMB
YNR PBY COMB
YNR PULSE
APT DAC
REC (SP) REC (LP) PB REC SEP COMP
CNR SCC
COLOR SEQUENCE COMP
CLK
SERIAL DECODER
CTL
1H DL
TTEXT
1 2 3 4 5
A B C D E F G H

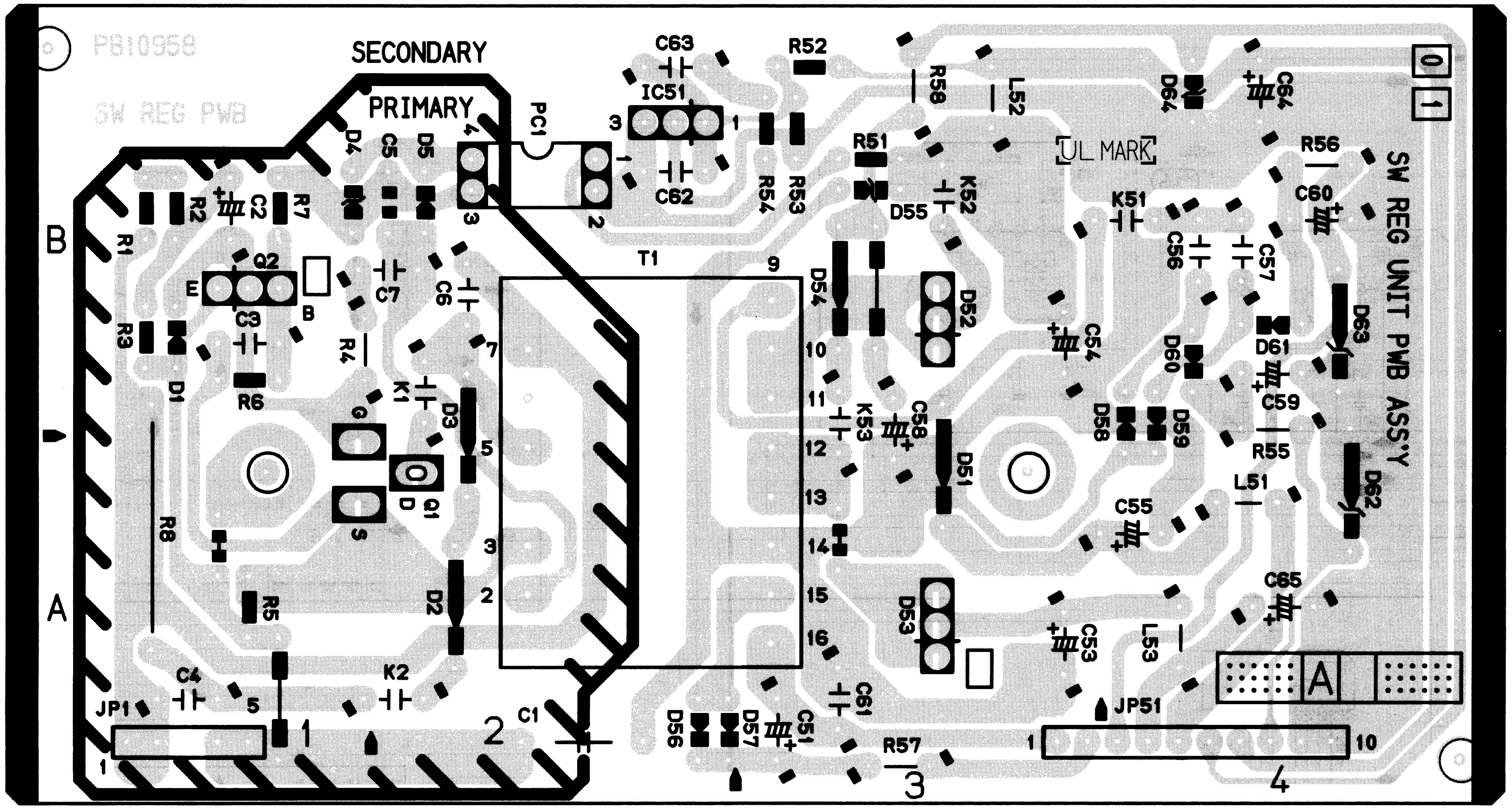
4.5 SWITCHING REGULATOR SCHEMATIC DIAGRAM



01 SWITCHING REGULATOR
03 MAIN(REGULATOR)
F801 T1.25A 250V
LF801 PELN0885
LF802 PELN0876
C803 0.033 /250
C801 0.022 /250
C802 0.068 /250
D801 10E6
D802 10E6
D803 10E6
D804 10E6
C810 100 /400
JP801
JP1
Vin+
Vin-
307.7
CN801
AC220~240V 50/60HZ
C814
R1 330K
R2 330K
R3 68K
C4 0.0047 /1K
R8 68K 2W
K2 PELN0662
D2 10ELS4 ERA18-04 AU01 1SR153-400
D3 10ELS4 ERA18-04 AU01 1SR153-400
C2 2.2 /50
C6
K1 PELN0662
T1 PELN1065
Q1 2SK1459
R4 330 2W
C7 0.1/50
R5 0.39 1W
C3 0.012 /50
R6 820
Q2 2SC3616(ML)
D1 1SS133 MA165 1N4148M
R7 1.2K
C5 120P
D5 1SS133 MA165 1N4148M
D4 RD27ES82 MTZJ27(B) UZ27BSB
PC1 PC123FY2 PC120FY9 TLP621D4(YGR)
C1 2200P /400
D56 1SS133 MA165 1N4148M
D57 1SS133 MA165 1N4148M
R57 15 1W
C51 100 /10
C56 0.0015 /50
D60 1SS131
R55 470 2W
C61 0.01 /50
D58 1SS131
C59 22 /63
D62 HZ30CP
C60 22 /50
D59 1SS131
D63 HZ27BP
K51 PELN0662
C57 0.0047 /50
D61 1SS131
R56 470 2W
D51 AU01Z ERA18-02 1SR153-200 10ELS2
L51 33μ
C55 180 /25
D52 F5KQ100B
K52 PELN0662
L52 33μ
L53 33μ
C65 330 /10
D53 FMB-24 F5KQ40B YG801C04 MA7049
K53 PELN0662
C53 1200 /10
C54 820 /16
D55 RD15ESB1 UZ15BSA
C58 10 /50
C64 220 /16
D64
D54 10ELS2 ERA18-02 AU01Z 1SR153-200
R58 1.8K 2W
R51 2.2K
R52 12.1K
C52 0.022 /50
R54 4.7K
C63 0.068 /50
IC51 L5431
R53 3.01K
JP51
JP802
DC(-) -23.8
DC(+) -19.6
-28V -28.6
5.8V 6.1
M17V 25.3
AUDIO(-) -5.0
12V 12.5
BT2 32.8
GND(M) 0
GND 0
FROM/TO TUNER (Page4-27)
SW 12V
AL 12V
RF 5V
SW 5V
BT2
GND
FROM/TO SYSCON (Page4-23)
GND(C)
DC(-)
DC(+)
-28V
SW 5V
M17V
M12V
P.CTL(L)
AL 5.8V
SW 12V
GND(M)
R856 1K
Q853 2SC3616(MLK)
Q854 DTA114EU
R866 470
R868 47K
C866 10 /50
C867 100 /16
Q859 2SD1450ST 2SD1302(ST)
R872 220
C868 47 /16
C870 100 /16
FROM/TO SERVO (Page4-22)
M12V
GND(M)
SW 5V
GND(C)
CP801 ICP-N15
Q855 2SD2144S(UVW)
C864 22/16
C865 100 /10
R863 510
R864 470
L854 SHORT
FROM/TO VIDEO (Page4-19)
RF 5V
GND
SW 12V
SW 5V
Q851 2SD1913(RS)
R858 470
C862 0.001 /50
R859 1K
D863 1SS133 MA165 1N4148M
D862 RD5.1JSB2
R862 470
Q852 2SC1740S 2SC2785(J-E)
R860 470
R861 10K
C863 100 /10
R862 SWD 5V
FROM/TO AUDIO (Page4-18)
SW 5V
RF 5V
AL 12V
SW 12V
AUDIO(-)
GND
A
B
C
D
E
F
G
H
1
2
3
4
5

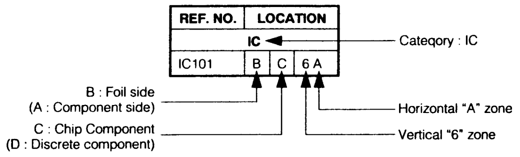
NOTE: Mark(*)is not used.

4.6 SWITCHING REGULATOR CIRCUIT BOARD

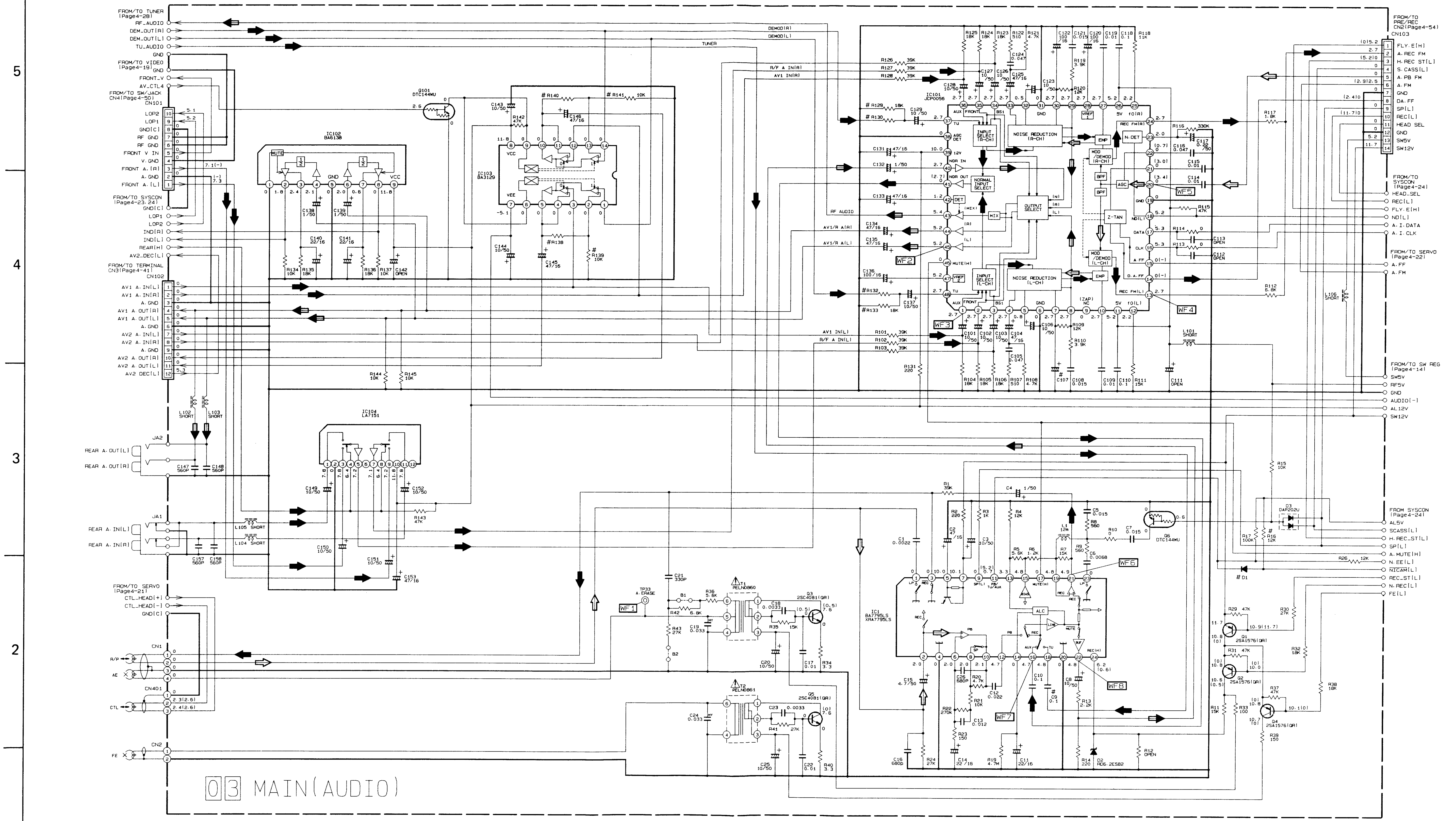

PB10958
SW REG PWB
SECONDARY
PRIMARY
SW REG UNIT PWB ASS'Y
UL MARK
0
1
B
A
C63
IC51
C62
R52
R58
L52
D64
C64
R51
R54
R53
D55
K52
R56
C60
K51
C56
C57
PC1
D4
C5
D5
R2
C2
R7
R1
Q2
E
B
C3
C7
C6
R3
D1
R6
R4
K1
D3
G
D
S
Q1
R8
R5
D2
T1
D54
D52
C54
D60
D61
D63
C59
D58
D59
R55
K53
C58
D51
L51
C55
D62
C65
D53
C53
L53
JP51
JP1
C4
K2
C1
D56
D57
C51
C61
R57
1
2
3
4
5
7
9
10
11
12
13
14
15
16

COMPONENT PARTS LOCATION GUIDE

REF.NO.	LOCATION		
CAPACITOR			
C1	A	D	2A
C2	A	D	1B
C3	A	D	1B
C4	A	D	1A
C5	A	D	2B
C6	A	D	2B
C7	A	D	2B
C51	A	D	3A
C53	A	D	3A
C54	A	D	3B
C55	A	D	4A
C56	A	D	4B
C57	A	D	4B
C58	A	D	3A
C59	A	D	4B
C60	A	D	4B
C61	A	D	3A
C62	A	D	2B
C63	A	D	2C
C64	A	D	4C
C65	A	D	4A
DIODE			
D1	A	D	1B
D2	A	D	2A
D3	A	D	2B
D4	A	D	1B
D5	A	D	2B
D51	A	D	3B
D52	A	D	3B
D53	A	D	3A
D54	A	D	3B
D55	A	D	3B
D56	A	D	2A
D57	A	D	2A
D58	A	D	4A
D59	A	D	4B
D60	A	D	4B
D61	A	D	4B
D62	A	D	4B
D63	A	D	4B
D64	A	D	4C
IC			
IC51	A	D	2B
COIL			
L51	A	D	4A
L52	A	D	3B
L53	A	D	4A
TRANSISTOR			
Q1	A	D	1A
Q2	A	D	1B
R1	A	D	1B
R2	A	D	1B
R3	A	D	1B
R4	A	D	1B
R5	A	D	1A
R6	A	D	1B
R7	A	D	1B
R8	A	D	1A
R51	A	D	3B
R52	A	D	3C
R53	A	D	3B
R54	A	D	3B
R55	A	D	4B
R56	A	D	4B
R57	A	D	3A
R58	A	D	3C
OTHER			
JP1	A	D	1A
JP51	A	D	3A
K1	A	D	2B
K2	A	D	2A
K51	A	D	4B
K52	A	D	3B
K53	A	D	3A
PC1	A	D	2B
T1	A	D	2A


REF. NO.
LOCATION
IC
IC101
B
C
6 A
Categqory : IC
B : Foil side
(A : Component side)
C : Chip Component
(D : Discrete component)
Horizontal "A" zone
Vertical "6" zone

4.7 AUDIO SCHEMATIC DIAGRAM


5
4
3
2
1
FROM/TO TUNER (Page4-28)
RF_AUDIO
DEM_OUT(R)
DEM_OUT(L)
TU_AUDIO
GND
FROM/TO VIDEO (Page4-19)
FRONT_V
AV_CTL4
FROM/TO SW/JACK CN4(Page4-50)
CN101
LOP2
LOP1
GND(C)
RF GND
FRONT V IN
V.GND
FRONT A.(R)
A.GND
FRONT A.(L)
FROM/TO SYSCON (Page4-23,24)
IND(R)
IND(L)
REAR(H)
AV2_DEC(L)
FROM/TO TERMINAL CN3(Page4-41)
CN102
AV1 A.IN(L)
AV1 A.IN(R)
A.GND
AV1 A.OUT(R)
AV1 A.OUT(L)
AV2 A.IN(L)
AV2 A.IN(R)
AV2 A.OUT(R)
AV2 A.OUT(L)
AV2 DEC(L)
L102 SHORT
L103 SHORT
JA2
REAR A.OUT(L)
REAR A.OUT(R)
C147 560P
C148 560P
JA1
REAR A.IN(L)
REAR A.IN(R)
L105 SHORT
L104 SHORT
C157 560P
C158 560P
FROM/TO SERVO (Page4-21)
CTL_HEAD(+)
CTL_HEAD(-)
CN1
R/P
AE
CN401
CTL
CN2
FE
IC102 BA6138
MUTE
VCC
IC103 BA3129
IC104 LA7151
Q101 DTC144WU
IC101 JCP0056
INPUT SELECT (R-CH)
NOISE REDUCTION (R-CH)
NORMAL INPUT SELECT
OUTPUT SELECT
MIX
DET
AGC
BPF
EMP
N.DET
MOD /DEMOD (R-CH)
MOD /DEMOD (L-CH)
Z-TAN
INPUT SELECT (L-CH)
NOISE REDUCTION (L-CH)
DEMOD(R)
DEMOD(L)
TUNER
R/F A IN(R)
AV1 IN(R)
RF AUDIO
AV1/R A(R)
AV1/R A(L)
AV1 IN(L)
R/F A IN(L)
WF1
WF2
WF3
WF4
WF5
WF6
WF7
WF8
FROM/TO PRE/REC CN2(Page4-54)
CN103
FLY.E(H)
A.REC FM
H.REC ST(L)
S.CASS(L)
A.PB FM
A.FM
GND
DA.FF
SP(L)
REC(L)
HEAD SEL
SW5V
SW12V
FROM/TO SYSCON (Page4-24)
HEAD_SEL
REC(L)
FLY.E(H)
ND(L)
A.I.DATA
A.I.CLK
FROM/TO SERVO (Page4-22)
A.FF
A.FM
FROM/TO SW REG (Page4-14)
AL5V
RF5V
GND
AUDIO(-)
AL12V
SW12V
FROM SYSCON (Page4-24)
AL5V
SCASS(L)
H.REC_ST(L)
SP(L)
A.MUTE(H)
N.EE(L)
NICAM(L)
REC_ST(L)
N.REC(L)
FE(L)
D3 DAP202U
Q6 DTC144WU
IC1 BA7795LS XRA7795LS
ALC
TP33 A.ERASE
T1 PELN0860
T2 PELN0861
Q3 2SC4081(QR)
Q5 2SC4081(QR)
Q1 2SA1576(QR)
Q2 2SA1576(QR)
Q4 2SA1576(QR)
D2 RD6.2ES82
L101 SHORT
L106 SHORT
03 MAIN(AUDIO)

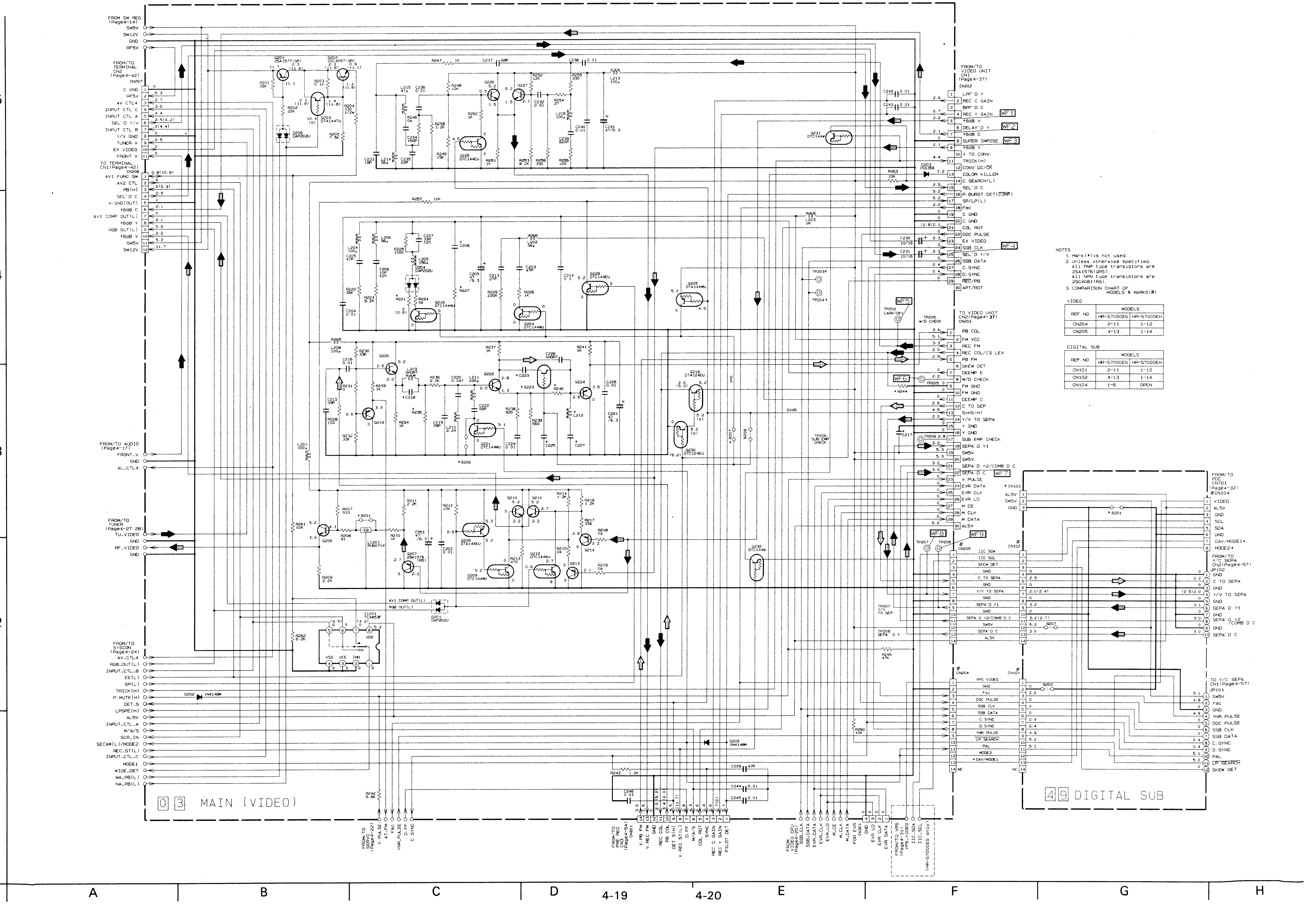
NOTES :

1. Mark(*)is not used.
2. COMPARISON CHART OF MODELS & MARKS(#)

REF. NO	MODELS	
	HR-S7000EG	HR-S7000EH
D1, C9, R16	OPEN	USED
R129, R133	USED	OPEN
R130, R132	39K	SHORT
R138, R140	SHORT	33K
R139, R141	OPEN	USED
C107	100μ/16V	100μ/50V

A B C D E F G H

4.8 VIDEO SCHEMATIC DIAGRAM


03 MAIN (VIDEO)
49 DIGITAL SUB
FROM SW REG (Page4-14)
FROM/TO TERMINAL CN2 (Page4-42)
TO TERMINAL CN1 (Page4-42)
FROM/TO AUDIO (Page4-17)
FROM/TO TUNER (Page4-27,28)
FROM/TO SYSCON (Page4-24)
FROM/TO SERVO (Page4-22)
FROM/TO PRE REC CN3 (Page4-54)
FROM VIDEO CPU (Page4-29)
FROM/TO VPS (Page4-31) (HR-S7000EG only)
FROM/TO VIDEO UNIT CN1 (Page4-37)
TO VIDEO UNIT CN2 (Page4-37)
FROM/TO POC CN701 (Page4-32)
FROM/TO Y/C SEPA CN2 (Page4-57)
TO Y/C SEPA CN1 (Page4-57)
IC201 TC4053F
WF1
WF2
WF3
WF4
WF5
WF6
WF7
WF8
WF9
A
B
C
D
E
F
G
H
1
2
3
4
5

NOTES

1. Mark(*) is not used.
2. Unless otherwise specified. All PNP type transistors are 2SA1576(QRS). All NPN type transistors are 2SC4081(RS).
3. COMPARISON CHART OF MODELS & MARKS(#)

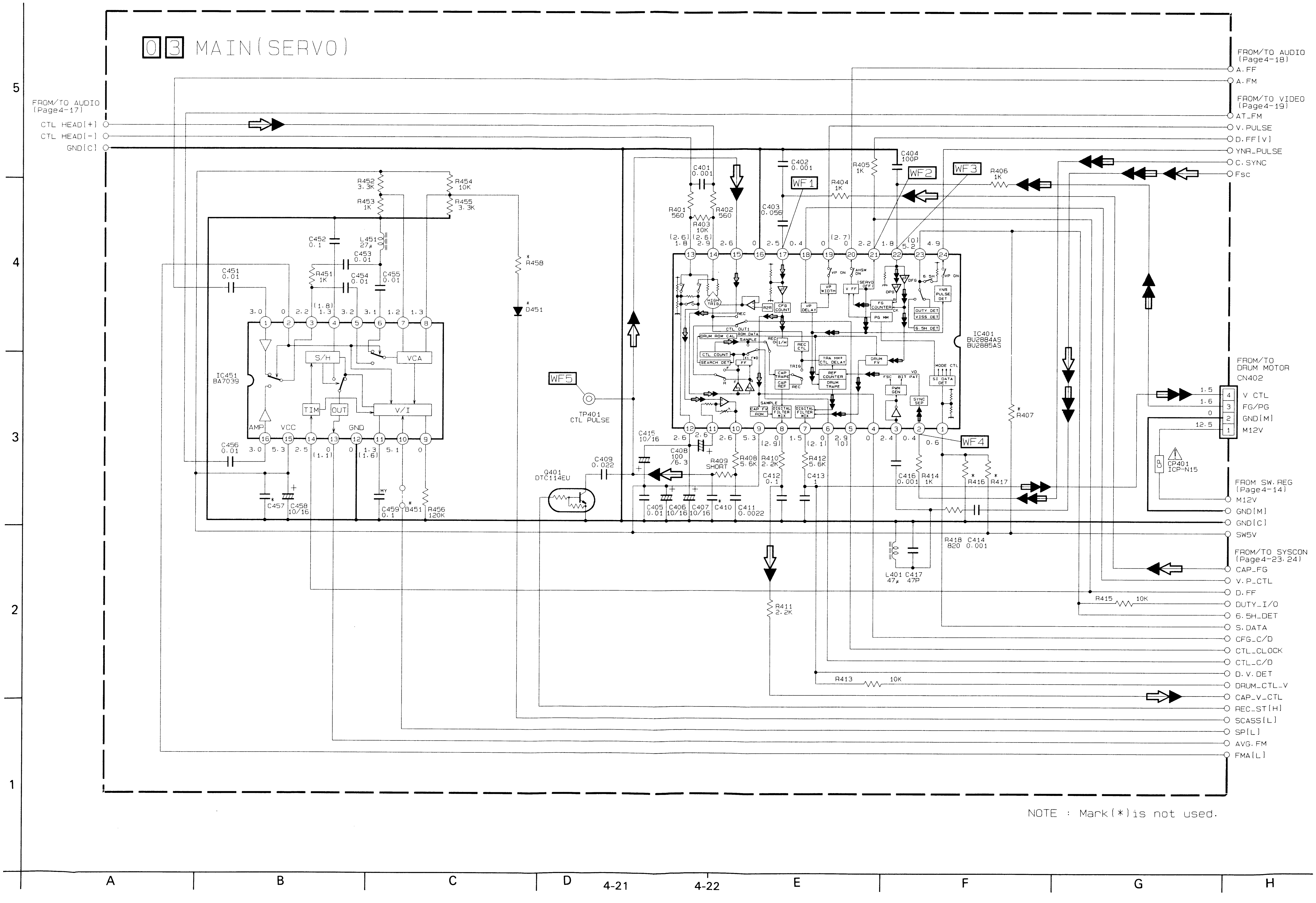
VIDEO

REF. NO	MODELS	
	HR-S7000EG	HR-S7000EH
CN204	2-11	1-12
CN205	4-13	1-14

DIGITAL SUB

REF. NO	MODELS	
	HR-S7000EG	HR-S7000EH
CN101	2-11	1-12
CN102	4-13	1-14
CN104	1-6	OPEN

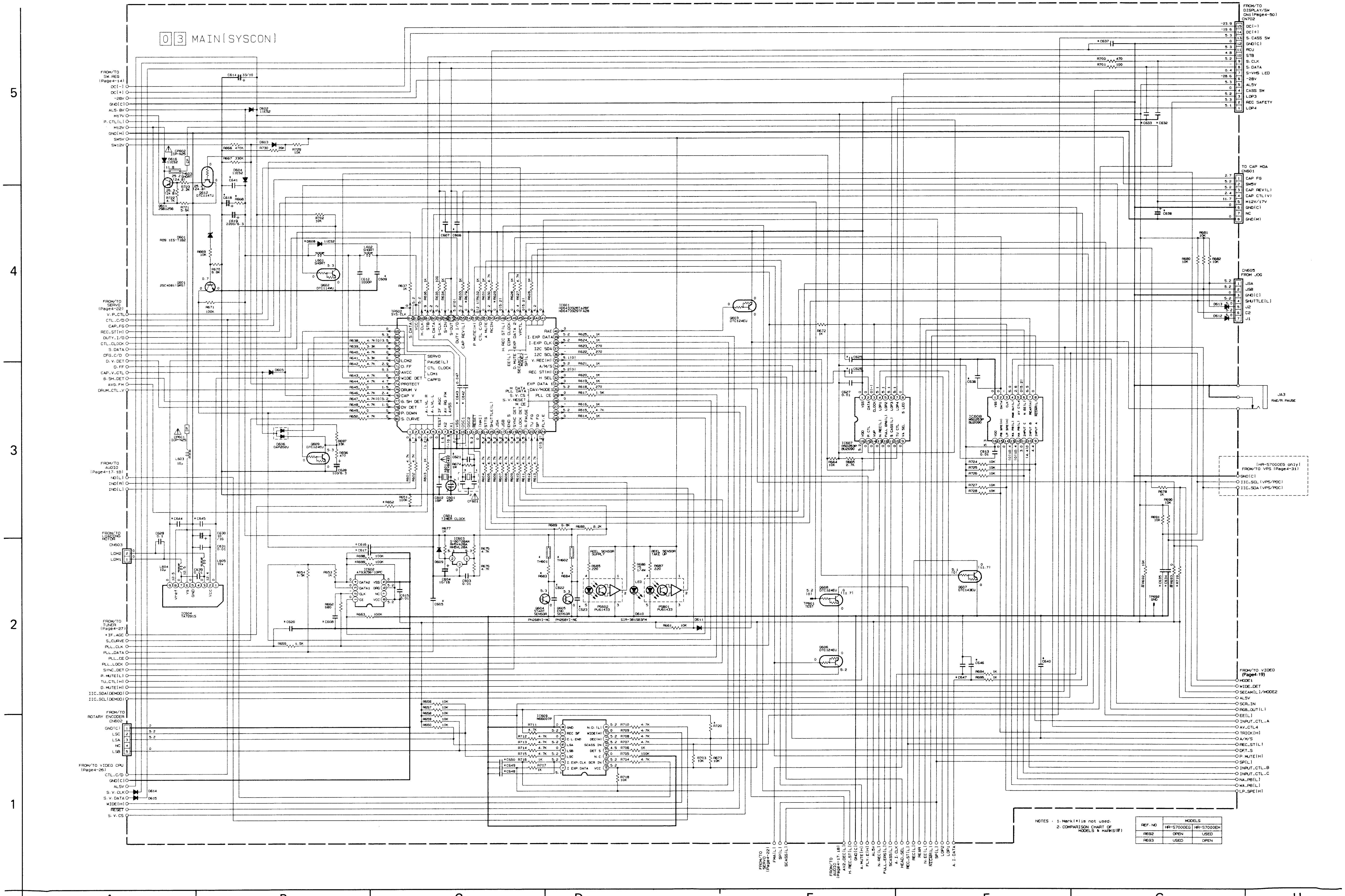
4.9 SERVO SCHEMATIC DIAGRAM



03 MAIN(SERVO)
FROM/TO AUDIO (Page4-17)
CTL HEAD(+)
CTL HEAD(-)
GND(C)
FROM/TO AUDIO (Page4-18)
A.FF
A.FM
FROM/TO VIDEO (Page4-19)
AT_FM
V.PULSE
D.FF(V)
YNR_PULSE
C.SYNC
Fsc
FROM/TO DRUM MOTOR CN402
V CTL
FG/PG
GND(M)
M12V
CP401 ICP-N15
FROM SW.REG (Page4-14)
M12V
GND(M)
GND(C)
SW5V
FROM/TO SYSCON (Page4-23,24)
CAP_FG
V.P_CTL
D.FF
DUTY_I/O
6.5H_DET
S.DATA
CFG_C/D
CTL_CLOCK
CTL_C/D
D.V.DET
DRUM_CTL_V
CAP_V_CTL
REC_ST(H)
SCASS(L)
SP(L)
AVG.FM
FMA(L)
IC451 BA7039
S/H
VCA
TIM
OUT
V/I
AMP
VCC
GND
IC401 BU2884AS BU2885AS
Q401 DTC114EU
TP401 CTL PULSE
WF1
WF2
WF3
WF4
WF5
R452 3.3K
R453 1K
R454 10K
R455 3.3K
R458
D451
L451 27μ
C451 0.01
C452 0.1
C453 0.01
C454 0.01
C455 0.01
R451 1K
C456 0.01
C457
C458 10/16
C459 0.1
B451
R456 120K
C401 0.001
C402 0.001
C403 0.056
C404 100P
R401 560
R402 560
R403 10K
R404 1K
R405 1K
R406 1K
R407
C409 0.022
C415 10/16
C408 100 /6.3
R409 SHORT
R408 5.6K
R410 2.2K
R412 5.6K
C412 0.1
C413 1
C405 0.01
C406 10/16
C407 10/16
C410
C411 0.0022
C416 0.001
R414 1K
R416
R417
R418 820
C414 0.001
L401 47μ
C417 47P
R411 2.2K
R415 10K
R413 10K
1 2 3 4 5
A B C D E F G H

NOTE : Mark(*)is not used.

4.10 SYSTEM CONTROL SCHEMATIC DIAGRAM

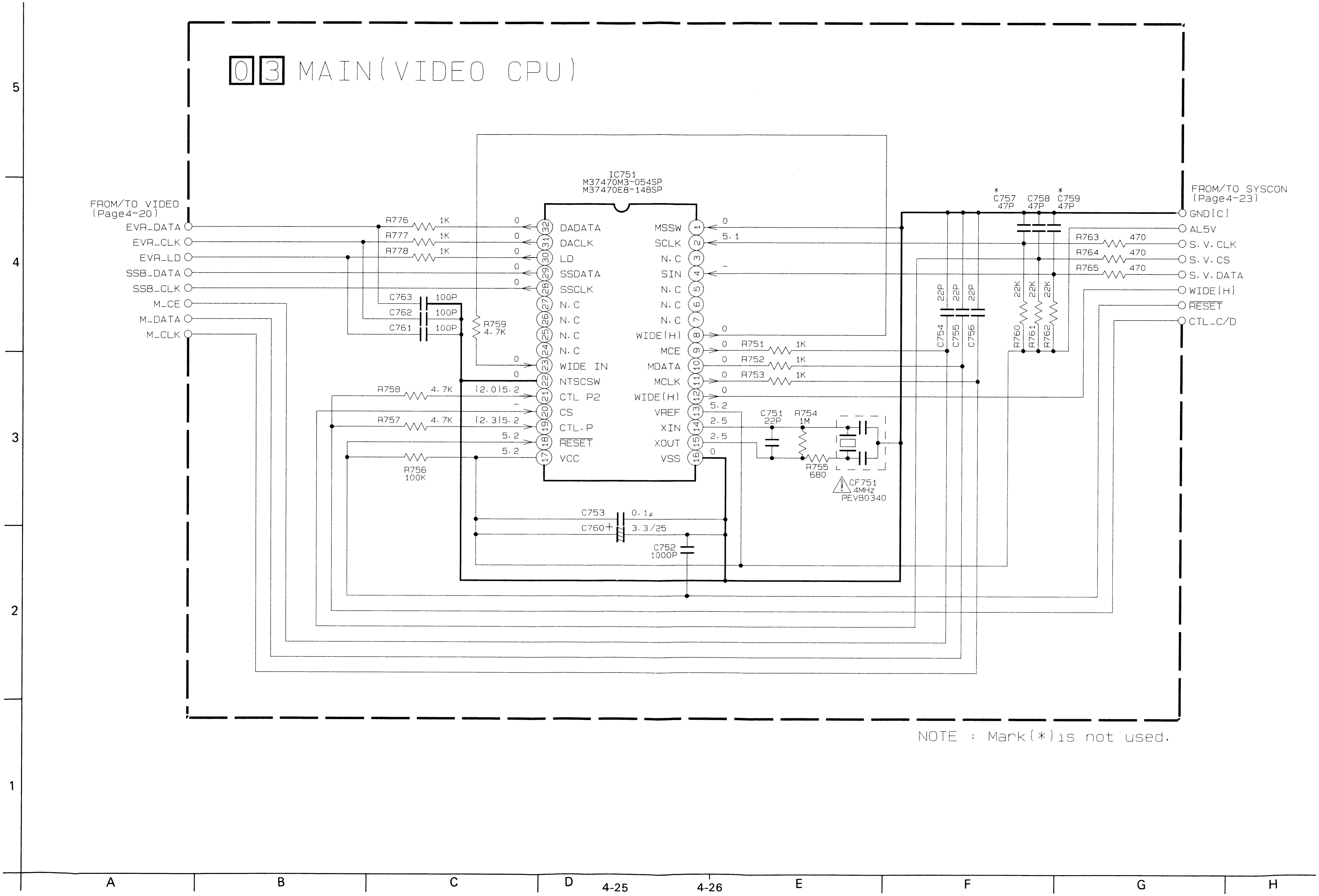


0 3 MAIN(SYSCON)
FROM/TO SW.REG (Page4-14)
DC(-)
DC(+)
-28V
GND(C)
AL5.8V
M17V
P.CTL(L)
M12V
GND(M)
SW5V
SW12V
FROM/TO SERVO (Page4-22)
V.P_CTL
CTL_C/D
CAP_FG
REC_ST(H)
DUTY_I/O
CTL_CLOCK
S.DATA
CFG_C/D
D.V.DET
D.FF
CAP_V_CTL
6.5H_DET
AVG.FM
DRUM_CTL_V
FROM/TO AUDIO (Page4-17.18)
ND(L)
IND(R)
IND(L)
FROM/TO LOADING MOTOR
CN603
LDM2
LDM1
IC604 TA7291S
FROM/TO TUNER (Page4-27)
*IF_AGC
S_CURVE
PLL_CLK
PLL_DATA
PLL_CE
PLL_LOCK
SYNC_DET
P.MUTE(L)
TU_CTL(H)
D.MUTE(H)
IIC_SDA(DEMOD)
IIC_SCL(DEMOD)
FROM/TO ROTARY ENCODER
CN602
GND(C)
LSC
LSA
NC
LSB
FROM/TO VIDEO CPU (Page4-26)
CTL_C/D
GND(C)
AL5V
S.V.CLK
S.V.DATA
WIDE(H)
RESET
S.V.CS
D614
D615
C614 33/10
D602 11ES2
D603
R666 470K
R730 39K
R729 10K
R667 330K
D604 11ES2
CP602 ICP-N25
D616 11ES2
TH603 SHORT
Q612 DTC114TU
R723 2.2K
R722 4.7K
Q611 2SB1258
Q601 2SC4081(QRS)
CP601 ICP-N25
L603 10μ
IC601
IC602 AT93C56-10PC
IC603
IC607
IC608
IC609 M66007P
Q604 START SENSOR
Q605 END SENSOR
PS602 REEL SENSOR SUPPLY
PS601 REEL SENSOR TAKE UP
Q603 DTC124EU
Q606 DTC124EU
Q607 DTC143EU
Q608 DTC124EU
Q609 DTC124EU
FROM/TO DISPLAY/SW CN1(Page4-50)
CN702
15 DC(-) -23.9
14 DC(+) -19.6
13 S.CASS SW 5.3
12 GND(C) 0
11 RCU 5.3
10 STB 4.8
9 S.CLK 5.2
8 S.DATA -
7 S-VHS LED 0.4
6 -28V -28.6
5 AL5V 5.3
4 CASS SW 0
3 LOP3 5.2
2 REC SAFETY 5.3
1 LOP4 5.1
TO CAP MDA
CN601
1 CAP FG 2.7
2 SW5V 5.2
3 CAP REV(L) 5.2
4 CAP CTL(V) 2.4
5 M12V/17V 11.7
6 GND(C) 0
7 NC
8 GND(M) 0
R681 10K
R680 10K
R682 10K
CN605 FROM JOG
1 JSA 5.2
2 JSB 5.2
3 GND(C) 0
4 SHUTTLE(L) 5.2
5 J2 5.0
6 C2 5.2
7 J1 5.0
D613
D612
JA3 RAE/R PAUSE
(HR-S7000EG only) FROM/TO VPS (Page4-31)
GND(C)
IIC.SCL(VPS/PDC)
IIC.SDA(VPS/PDC)
FROM/TO VIDEO (Page4-19)
MODE1
WIDE_DET
SECAM(L)/MODE2
AL5V
SCR_IN
RGB_OUT(L)
EE(L)
INPUT_CTL_A
AV_CTL4
TRICK(H)
A/M/S
REC_ST(L)
DFT_S
P.MUTE(H)
SP(L)
INPUT_CTL_B
INPUT_CTL_C
NA_PB(L)
WA_PB(L)
LP_SPE(H)
FROM/TO SERVO (Page4-22)
FMA(L)
SP(L)
SCASS(L)
FROM/TO AUDIO (Page4-17.18)
AV2_DEC(L)
H.REC_ST(L)
GND(C)
A.MUTE(H)
FLY.E(H)
AL5V
N.REC(L)
FULL_ERS(L)
SCASS(L)
A.I.CLK
HEAD_SEL
REC_ST(L)
REC(L)
REAR
N.EE(L)
NICAM(L)
SP(L)
LOP2
LOP1
A.I.DATA
5
4
3
2
1
A
B
C
D
E
F
G
H

NOTES : 1. Mark(*)is not used.
2. COMPARISON CHART OF MODELS & MARKS(#)

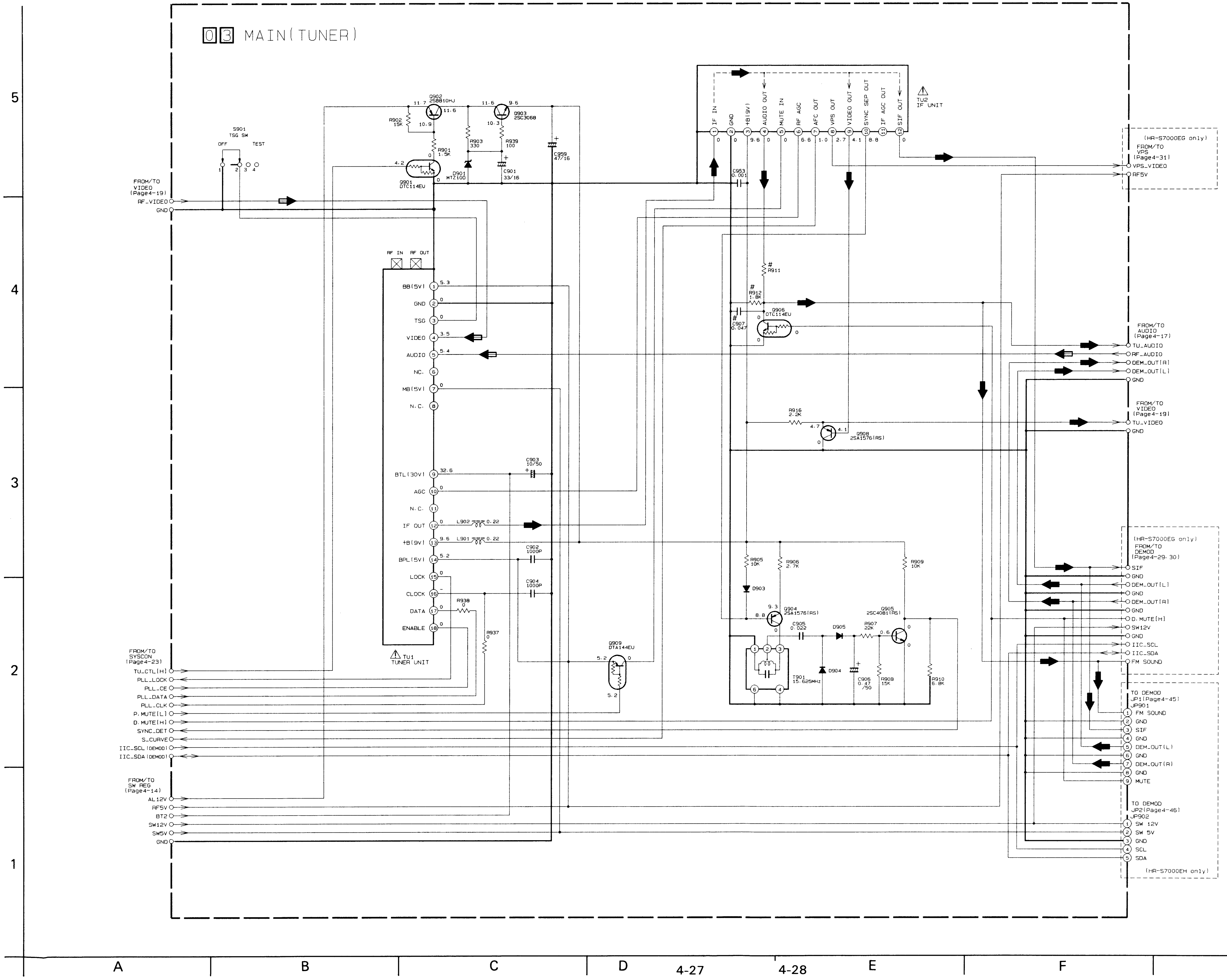
REF.NO	MODELS	
	HR-S7000EG	HR-S7000EH
R692	OPEN	USED
R693	USED	OPEN

4.11 VIDEO CPU SCHEMATIC DIAGRAM


03 MAIN(VIDEO CPU)
IC751
M37470M3-054SP
M37470E8-148SP
FROM/TO VIDEO
(Page4-20)
EVR_DATA
EVR_CLK
EVR_LD
SSB_DATA
SSB_CLK
M_CE
M_DATA
M_CLK
FROM/TO SYSCON
(Page4-23)
GND(C)
AL5V
S.V.CLK
S.V.CS
S.V.DATA
WIDE(H)
RESET
CTL_C/D
32 DADATA
31 DACLK
30 LD
29 SSDATA
28 SSCLK
27 N.C
26 N.C
25 N.C
24 N.C
23 WIDE IN
22 NTSCSW
21 CTL P2
20 CS
19 CTL.P
18 RESET
17 VCC
1 MSSW
2 SCLK
3 N.C
4 SIN
5 N.C
6 N.C
7 N.C
8 WIDE(H)
9 MCE
10 MDATA
11 MCLK
12 WIDE(H)
13 VREF
14 XIN
15 XOUT
16 VSS
R776 1K
R777 1K
R778 1K
C763 100P
C762 100P
C761 100P
R759 4.7K
R758 4.7K
R757 4.7K
R756 100K
(2.0)5.2
(2.3)5.2
5.2
5.2
0
5.1
2.5
2.5
R751 1K
R752 1K
R753 1K
C751 22P
R754 1M
R755 680
CF751 4MHz PEVB0340
C753 0.1μ
C760 3.3/25
C752 1000P
C754 22P
C755 22P
C756 22P
* C757 47P
C758 47P
* C759 47P
R760 22K
R761 22K
R762 22K
R763 470
R764 470
R765 470
5
4
3
2
1
A
B
C
D
E
F
G
H

NOTE : Mark(*)is not used.

4.12 TUNER SCHEMATIC DIAGRAM

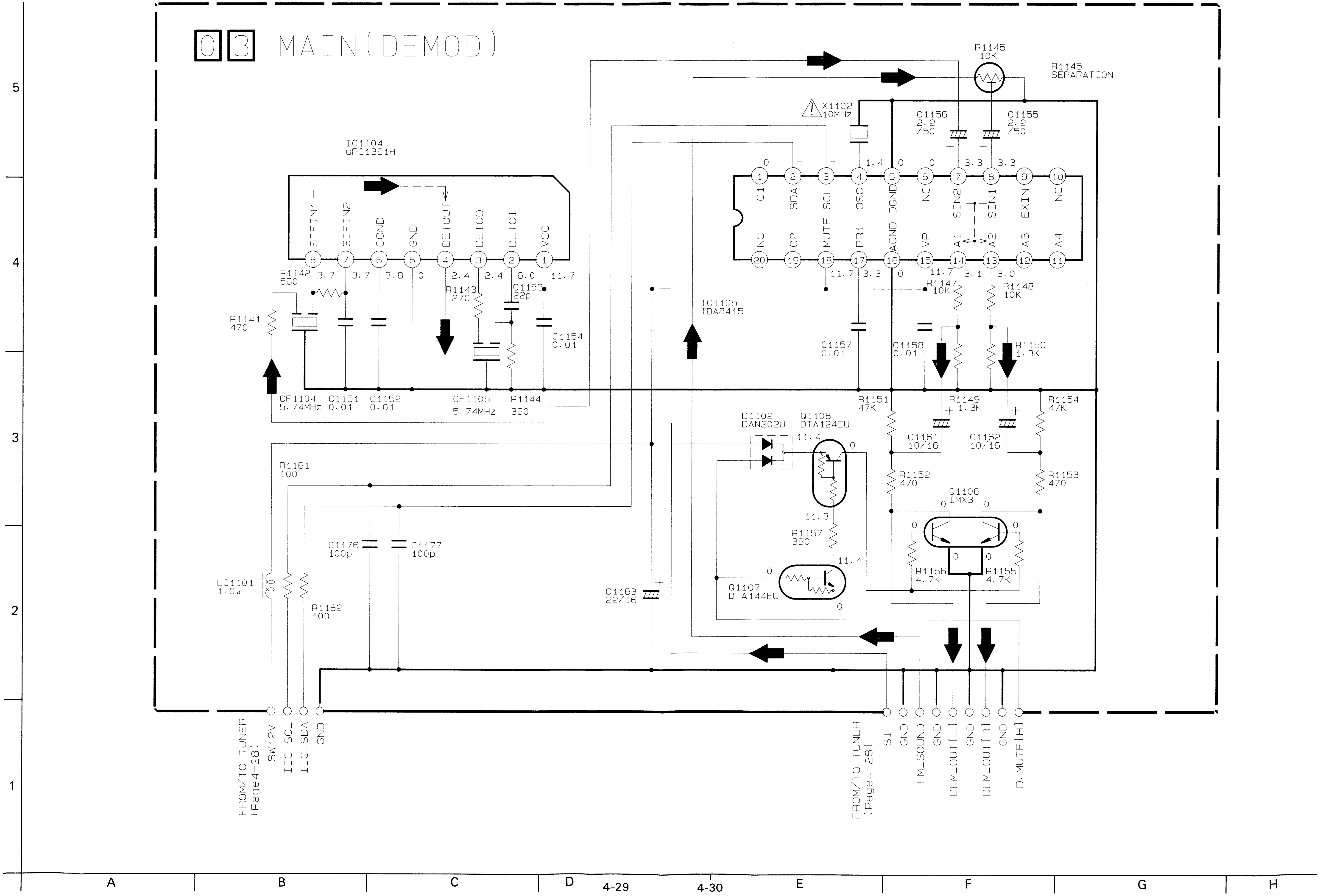


03 MAIN(TUNER)
Q902 2SB810HJ
Q903 2SC3068
R902 15K
R901 1.5K
R903 330
R939 100
C901 33/16
C959 47/16
D901 MTZ100
Q901 DTC114EU
S901 TSG SW
OFF
TEST
FROM/TO VIDEO (Page4-19)
RF_VIDEO
GND
TU2 IF UNIT
IF IN
GND
+B(9V)
AUDIO OUT
MUTE IN
RF AGC
AFC OUT
VPS OUT
VIDEO OUT
SYNC SEP OUT
IF AGC OUT
SIF OUT
C953 0.001
R911
R912 1.8K
C907 0.047
Q906 DTC114EU
R916 2.2K
Q908 2SA1576(RS)
RF IN
RF OUT
BB(5V)
GND
TSG
VIDEO
AUDIO
NC.
MB(5V)
N.C.
BTL(30V)
AGC
IF OUT
+B(9V)
BPL(5V)
LOCK
CLOCK
DATA
ENABLE
C903 10/50
L902 0.22
L901 0.22
C902 1000P
C904 1000P
R938 0
R937 0
TU1 TUNER UNIT
Q909 DTA144EU
R905 10K
R906 2.7K
R909 10K
D903
Q904 2SA1576(RS)
Q905 2SC4081(RS)
C905 0.022
D905
R907 22K
D904
C906 0.47/50
R908 15K
R910 6.8K
T901 15.625MHz
FROM/TO SYSCON (Page4-23)
TU_CTL(H)
PLL_LOCK
PLL_CE
PLL_DATA
PLL_CLK
P.MUTE(L)
D.MUTE(H)
SYNC_DET
S_CURVE
IIC_SCL(DEMOD)
IIC_SDA(DEMOD)
FROM/TO SW REG (Page4-14)
AL12V
RF5V
BT2
SW12V
SW5V
GND
(HR-S7000EG only)
FROM/TO VPS (Page4-31)
VPS_VIDEO
RF5V
FROM/TO AUDIO (Page4-17)
TU_AUDIO
RF_AUDIO
DEM_OUT(R)
DEM_OUT(L)
GND
FROM/TO VIDEO (Page4-19)
TU_VIDEO
GND
(HR-S7000EG only)
FROM/TO DEMOD (Page4-29, 30)
SIF
GND
DEM_OUT(L)
GND
DEM_OUT(R)
GND
D.MUTE(H)
SW12V
GND
IIC_SCL
IIC_SDA
FM SOUND
TO DEMOD JP1(Page4-45) JP901
FM SOUND
GND
SIF
GND
DEM_OUT(L)
GND
DEM_OUT(R)
GND
MUTE
TO DEMOD JP2(Page4-46) JP902
SW 12V
SW 5V
GND
SCL
SDA
(HR-S7000EH only)
5
4
3
2
1
A
B
C
D
E
F
G
H

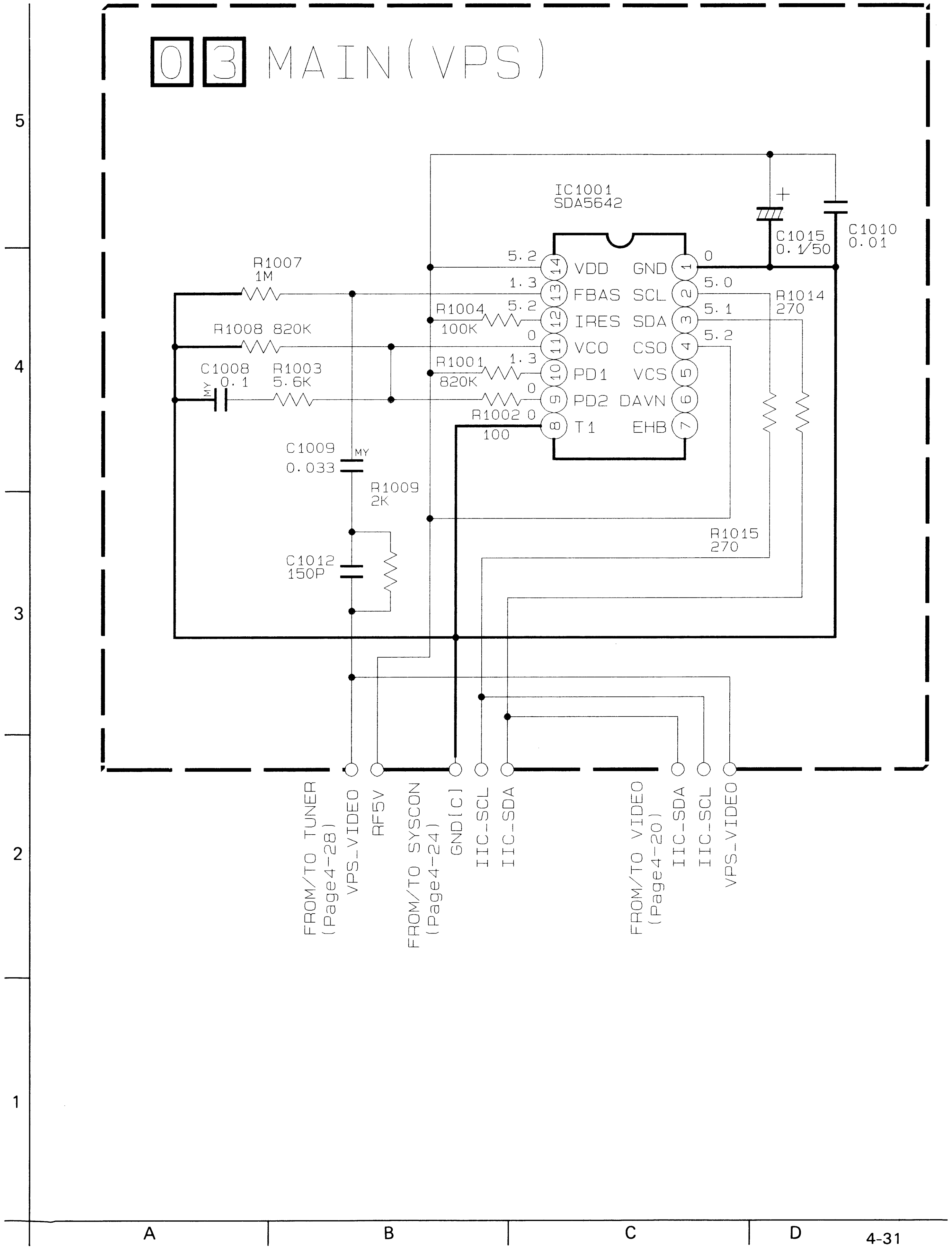
NOTES :
1. Mark(*)is not used.
2. COMPARISON CHART OF MODELS & MARKS(#)

REF. NO	MODELS	
	HR-S7000EG	HR-S7000EH
R911	0 Ω	3.9K
R912	OPEN	USED
C907	OPEN	USED

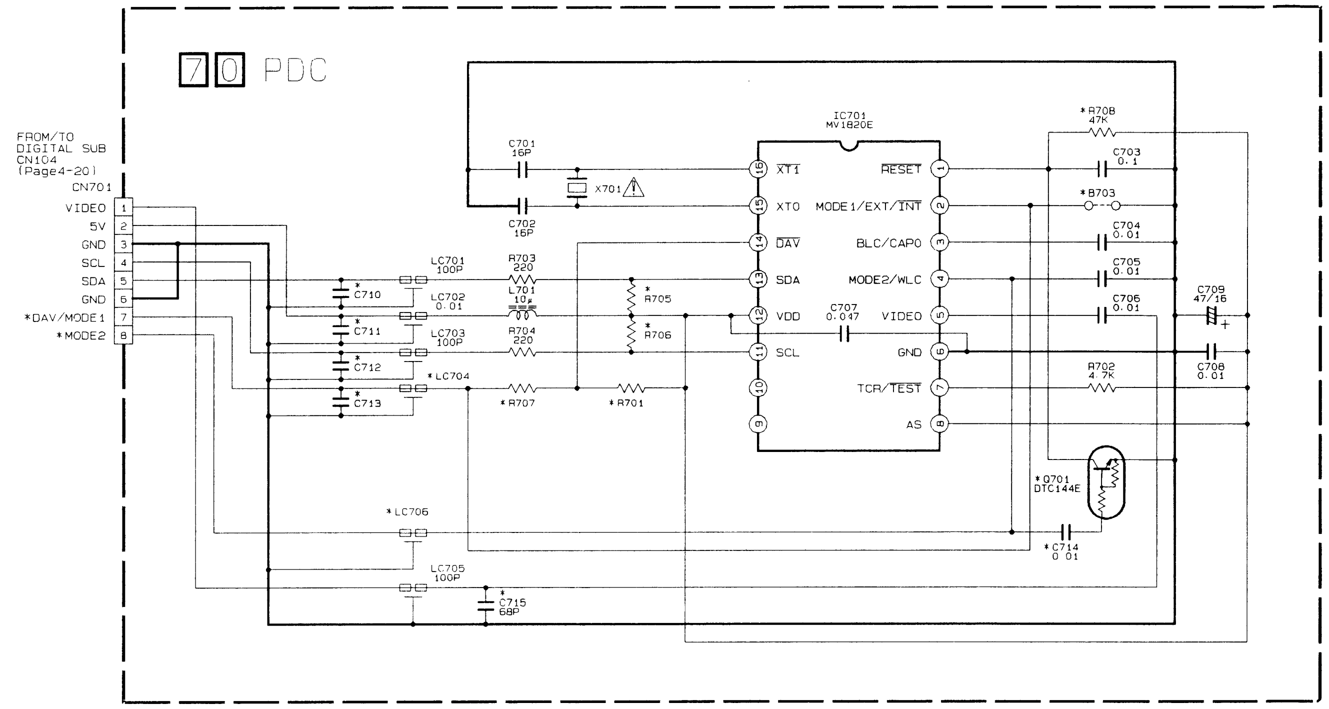
4.13 DEMODULATOR SCHEMATIC DIAGRAM (for HR-S7000EG)


03 MAIN(DEMOD)
IC1104
uPC1391H
SIFIN1
SIFIN2
COND
GND
DETOUT
DETCO
DETCI
VCC
8
7
6
5
4
3
2
1
3.7
3.7
3.8
0
2.4
2.4
6.0
11.7
R1142
560
R1141
470
R1143
270
C1153
22p
C1154
0.01
CF1104
5.74MHz
C1151
0.01
C1152
0.01
CF1105
5.74MHz
R1144
390
R1145
10K
R1145
SEPARATION
X1102
10MHz
C1156
2.2
/50
C1155
2.2
/50
0
-
-
1.4
0
0
3.3
3.3
C1
SDA
SCL
OSC
DGND
NC
SIN2
SIN1
EXIN
NC
NC
C2
MUTE
PR1
AGND
VP
A1
A2
A3
A4
20
19
18
17
16
15
14
13
12
11
9
10
11.7
3.3
0
11.7
3.1
3.0
IC1105
TDA8415
R1147
10K
R1148
10K
C1157
0.01
C1158
0.01
R1150
1.3K
R1151
47K
R1149
1.3K
R1154
47K
C1161
10/16
C1162
10/16
R1152
470
R1153
470
D1102
DAN202U
Q1108
DTA124EU
11.4
0
11.3
R1157
390
11.4
0
Q1107
DTA144EU
0
Q1106
IMX3
0
0
0
0
0
0
R1156
4.7K
R1155
4.7K
R1161
100
R1162
100
C1176
100p
C1177
100p
LC1101
1.0μ
C1163
22/16
FROM/TO TUNER
(Page4-28)
SW12V
IIC-SCL
IIC-SDA
GND
FROM/TO TUNER
(Page4-28)
SIF
GND
FM_SOUND
GND
DEM_OUT[L]
GND
DEM_OUT[R]
GND
D.MUTE[H]
5
4
3
2
1
A
B
C
D
E
F
G
H

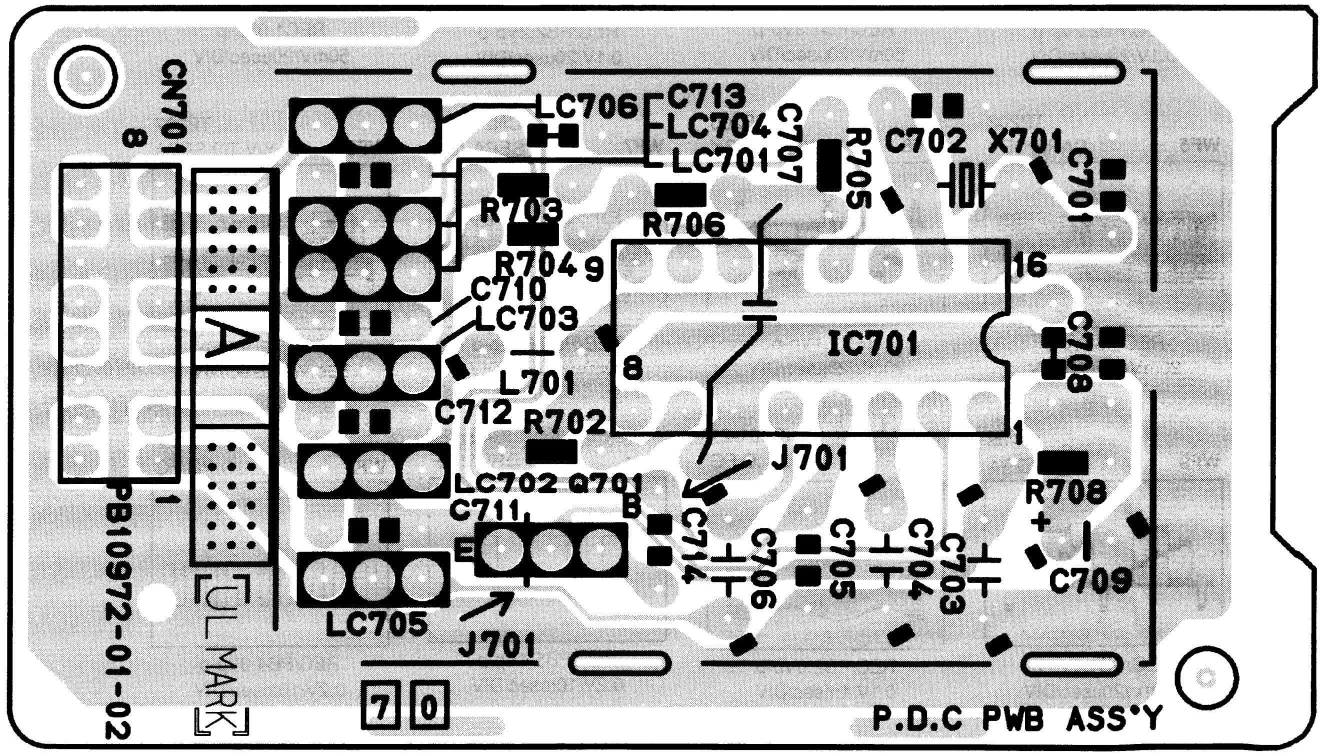
4.14 VPS SCHEMATIC DIAGRAM (for HR-S7000EG)


03 MAIN(VPS)
IC1001
SDA5642
VDD
FBAS
IRES
VCO
PD1
PD2
T1
GND
SCL
SDA
CSO
VCS
DAVN
EHB
5.2
1.3
5.2
0
1.3
0
0
5.0
5.1
5.2
R1007
1M
R1008 820K
C1008
0.1
MY
R1003
5.6K
R1004
100K
R1001
820K
R1002
100
C1009
0.033
MY
R1009
2K
C1012
150P
C1015
0.1/50
C1010
0.01
R1014
270
R1015
270
FROM/TO TUNER
(Page4-28)
VPS_VIDEO
RF5V
FROM/TO SYSCON
(Page4-24)
GND[C]
IIC_SCL
IIC_SDA
FROM/TO VIDEO
(Page4-20)
IIC_SDA
IIC_SCL
VPS_VIDEO
5
4
3
2
1
A
B
C
D

4.15 PDC SCHEMATIC DIAGRAM AND CIRCUIT BOARD (for HR-S7000EH)


70 PDC
FROM/TO
DIGITAL SUB
CN104
(Page4-20)
CN701
VIDEO 1
5V 2
GND 3
SCL 4
SDA 5
GND 6
*DAV/MODE1 7
*MODE2 8
*C710
*C711
*C712
*C713
LC701
100P
LC702
0.01
LC703
100P
*LC704
*LC706
LC705
100P
*C715
68P
C701
16P
C702
16P
X701
R703
220
L701
10μ
R704
220
*R705
*R706
*R707
*R701
IC701
MV1820E
XT1
XTO
DAV
SDA
VDD
SCL
RESET
MODE1/EXT/INT
BLC/CAPO
MODE2/WLC
VIDEO
GND
TCR/TEST
AS
C707
0.047
*R708
47K
C703
0.1
*B703
C704
0.01
C705
0.01
C706
0.01
C709
47/16
C708
0.01
R702
4.7K
*Q701
DTC144E
*C714
0.01

NOTE : Mark(*)is not used.

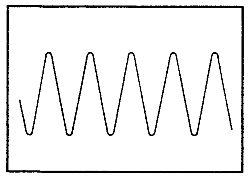

CN701
8
1
PB10972-01-02
A
UL MARK
LC706
C713
LC704
LC701
C707
R705
C702
X701
C701
R703
R706
R704
9
16
C710
LC703
IC701
8
L701
C712
R702
1
C708
J701
R708
LC702
Q701
B
C711
E
C714
C706
C705
C704
C703
+
C709
LC705
J701
70
P.D.C PWB ASS'Y

4.16 MAIN CIRCUIT BOARD

WAVEFORMS

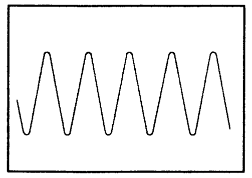
—AUDIO—

TP33
WF1 AUDIO ERASE



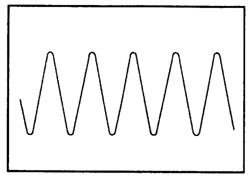
REC40.0Vp-p
2V/20μsec/DIV

WF2 IC101-45



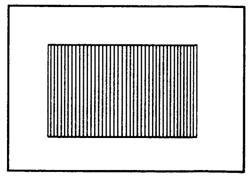
REC/PB1.2Vp-p
50mV/1msec/DIV

WF3 IC101-1



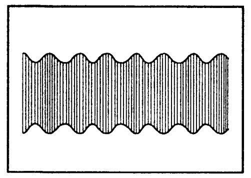
REC0.22Vp-p
10mV/1msec/DIV

WF4 IC101-13



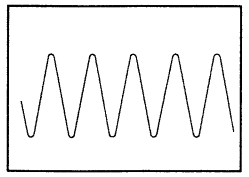
REC0.7Vp-p
50mV/1msec/DIV

WF5 IC101-20



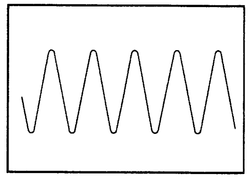
PB0.4Vp-p
20mV/1msec/DIV

WF6 IC1-21



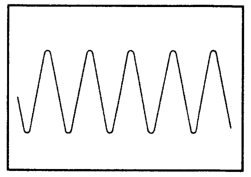
REC1.4Vp-p
50mV/1msec/DIV

WF7 IC1-16



REC0.12Vp-p
5mV/1msec/DIV

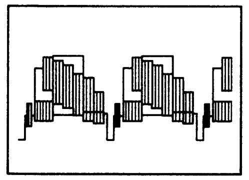
WF8 IC1-21



REC/PB1.1Vp-p
50mV/1msec/DIV

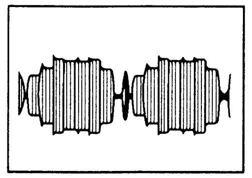
—VIDEO—

CN202-5
WF1 +6dB V



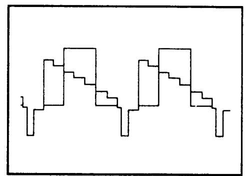
REC/PB2.2Vp-p
0.1V/20μsec/DIV

CN202-7
WF2 +6dB C



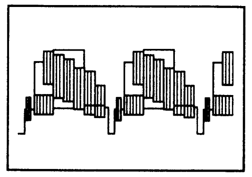
REC/PB1.3Vp-p
50mV/20μsec/DIV

CN202-9
WF3 +6dB Y



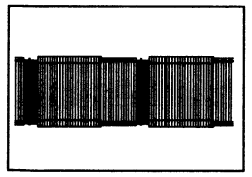
REC/PB2.2Vp-p
0.1V/20μsec/DIV

CN202-25
WF4 SEL'D Y/V



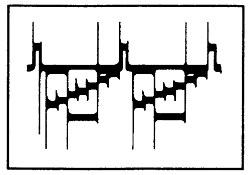
REC1.0Vp-p
50mV/20μsec/DIV

TP202
WF5 CARR/DEV



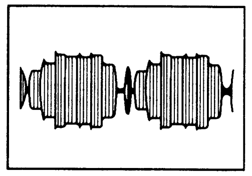
REC0.88Vp-p
20mV/5msec/DIV

TP205
WF6 W/D CHECK



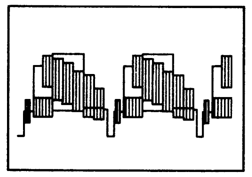
REC1.1Vp-p
20mV/20μsec/DIV

CN203-22
WF7 SEPA'D C



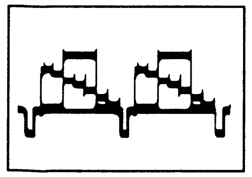
REC/PB0.65Vp-p
50mV/20μsec/DIV

TP207
WF8 Y/V TO SEPA



REC/PB1.0Vp-p
50mV/20μsec/DIV

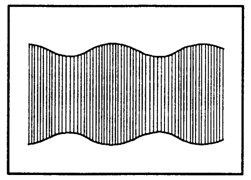
TP208
WF9 SEPA'D Y1



REC/PB1.0Vp-p
50mV/20μsec/DIV

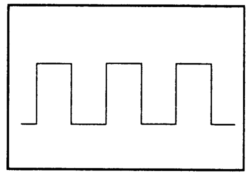
—SERVO—

IC401-21
WF1 C.FG



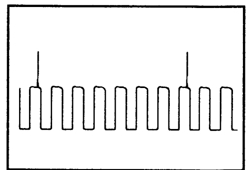
REC/PB2.0Vp-p
0.1V/1msec/DIV

IC401-21
WF2 DRUM FF



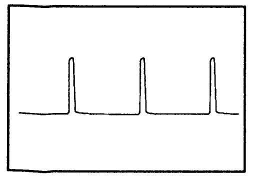
REC/PB5.4Vp-p
0.2V/10msec/DIV

IC401-22
WF3 D.PG/FG



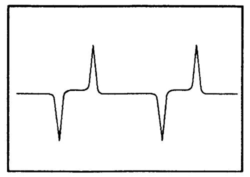
REC/PB4.0Vp-p
0.2V/10msec/DIV

IC401-2
WF4 C.SYNC

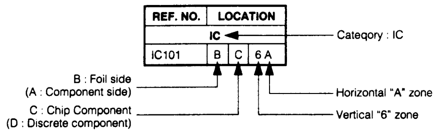


REC/PB4.8Vp-p
0.2V/20μsec/DIV

TP401
WF5 CTL PULSE



PB3.0Vp-p
0.1V/10msec/DIV



COMPONENT PARTS LOCATION GUIDE

REF.NO.	LOCATION		
CAPACITOR			
C1	B	C	10K
C2	A	D	9J
C3	A	D	8J
C4	A	D	8K
C5	A	D	8K
C6	A	D	8L
C7	A	D	8K
C8	A	D	8L
C9	B	C	9L
C10	B	C	9L
C11	A	D	9L
C12	B	C	9L
C13	B	C	10L
C14	A	D	10L
C15	A	D	10L
C16	B	C	10L
C17	B	C	7J
C18	B	C	7J
C19	A	D	8J
C20	A	D	7J
C21	B	C	8J
C22	B	C	18H
C23	B	C	18H
C24	A	D	19G
C25	A	D	18H
C26	B	C	10L
C101	A	D	7N
C102	A	D	8O
C103	A	D	7O
C104	A	D	7N
C105	B	C	7O
C106	A	D	7N
C107	A	D	6N
C108	B	C	6N
C109	B	C	7N
C110	B	C	7N
C111	A	D	7N
C112	B	C	6M
C113	B	C	6M
C114	B	C	7M
C115	B	C	7M
C116	B	C	7M
C117	A	D	8M
C118	B	C	9M
C119	B	C	8M
C120	A	D	8M
C121	B	C	9M
C122	A	D	9M
C123	A	D	9M
C124	B	C	10M
C125	A	D	9M
C126	A	D	9M
C127	A	D	10M
C128	A	D	9M
C129	A	D	10M
C131	A	D	10N
C132	A	D	9N
C133	A	D	9N
C134	A	D	10N
C135	A	D	9O
C136	A	D	9O
C137	A	D	8N
C138	A	D	11K
C139	A	D	11K
C140	A	D	11J
C141	A	D	11K
C142	A	D	12J
C143	A	D	11N
C144	A	D	10M
C145	A	D	12M
C146	A	D	11N
C147	B	C	9P
C148	B	C	9P
C149	A	D	12N
C150	A	D	12O
C151	A	D	11O
C152	A	D	10N
C153	A	D	11O
C157	B	C	7P
C158	B	C	8P
C201	A	D	21I
C202	B	C	21I
C203	B	C	21B
C204	B	C	22E
C205	B	C	20D
C206	B	C	20D
C207	B	C	21D
C208	B	C	20D
C209	A	D	22E
C213	B	C	21B
C214	B	C	22D
C215	B	C	18B
C216	B	C	18B
C217	B	C	19F
C218	B	C	19C
C219	B	C	20C
C220	B	C	20C
C221	A	D	20B
C222	B	C	19C
C223	B	C	20C
C224	B	C	20C
C225	B	C	20B
C226	B	C	20C
C227	B	C	20B
C228	B	C	19C
C229	B	C	13L
C230	A	D	21F
C231	A	D	20F
C232	B	C	21E
C233	B	C	20F
C234	B	C	20E
C235	B	C	20F
C236	B	C	20E
C237	B	C	21E
C238	B	C	22D
C239	B	C	20D
C240	B	C	20E
C241	A	D	21D
C242	B	C	22H
C243	B	C	22H
C401	B	C	9J
C402	B	C	10J
C403	B	C	10J
C404	B	C	10J
C405	B	C	9I
C406	A	D	11I
C407	A	D	8J
C408	A	D	8I
C409	B	C	9H
C410	B	C	9I
C411	B	C	9I
C412	B	C	9I
C413	B	C	10I
C414	B	C	10I
C415	A	D	9I
C416	B	C	10I
C417	B	C	10I
C451	B	C	12I
C452	B	C	12H
C453	B	C	12H
C454	B	C	12H
C455	B	C	11H
C456	B	C	12H
C457	B	C	12I
C458	A	D	12I
C459	A	D	11I
C601	A	D	9C
C602	B	C	9C
C603	B	C	10C
C604	A	D	11C
C605	B	C	12E
C606	B	C	7E
C607	B	C	6E
C608	B	C	11E
C609	B	C	7E
C612	B	C	7D
C613	B	C	15E
C614	A	D	5B
C615	B	C	11E
C616	B	C	8C
C617	B	C	10E
C618	A	D	5D
C619	A	D	5B
C620	B	C	10E
C621	B	C	9D
C622	B	C	5E
C623	B	C	19E
C625	B	C	13D
C626	B	C	14D
C627	B	C	14D
C628	A	D	7E
C629	B	C	6K
C630	A	D	7I
C631	B	C	8I
C632	B	C	4C
C633	B	C	2B
C634	B	C	17D
C635	B	C	16D
C636	B	C	15D
C637	B	C	4C
C638	A	D	12I
C639	B	C	7I
C640	B	C	10E
C641	B	C	5D
C642	A	D	7E
C643	A	D	7E
C644	B	C	7I
C645	B	C	8I
C646	B	C	6E
C647	B	C	6E
C648	B	C	14B
C649	B	C	14B
C650	B	C	14B
C751	B	C	16C
C752	B	C	16C
C753	B	C	15C
C754	B	C	16B
C755	B	C	16B
C756	B	C	16B
C757	B	C	17C
C758	B	C	16C
C759	B	C	17C
C760	A	D	15D
C761	B	C	18C
C762	B	C	18C
C763	B	C	18C
C764	B	C	13B
C801	A	D	1O
C802	A	D	3O
C803	A	D	4M
C810	A	D	2L
C814	A	D	2M
C862	A	D	2E
C863	A	D	3C
C865	A	D	5F
C866	A	D	5H
C867	A	D	8H
C868	A	D	5I
C870	A	D	5I
C901	A	D	20L
C902	B	C	21L
C903	A	D	20J
C904	B	C	21K
C905	B	C	19O
C906	A	D	19O
C907	A	D	19M
C908	B	C	21K
C909	B	C	21K
C910	B	C	21K
C911	B	C	20L
C912	A	D	21L
C913	A	D	20K
C950	B	C	21L
C951	A	D	19M
C953	B	C	20M
C954	B	C	21P
C955	B	C	21N
C956	B	C	18O
C957	A	D	19M
C958	B	C	20J
C959	A	D	19L
C1008	A	D	19I
C1009	A	D	21J
C1010	B	C	19I
C1012	B	C	22J
C1015	A	D	20J
C1151	B	C	18L
C1152	B	C	18L
C1153	B	C	17L
C1154	B	C	17L
C1155	A	D	17L
C1156	A	D	18L
C1157	B	C	18M
C1158	B	C	18M
C1161	A	D	16M
C1162	A	D	16M
C1163	A	D	18M
C1176	B	C	18M
C1177	B	C	18M
CONNECTOR			
CN1	A	D	9K
CN2	A	D	19G
CN101	A	D	22J
CN102	A	D	11O
CN103	A	D	15L
CN201	A	D	13L
CN202	A	D	21H
CN203	A	D	21D
CN204	A	D	22G
CN205	A	D	22D
CN206	A	D	16O
CN207	A	D	14O
CN301	A	D	20A
CN401	A	D	9K
CN402	A	D	5L
CN601	A	D	11J
CN602	A	D	8B
CN603	A	D	6L
CN605	A	D	3B
CN702	A	D	3B
CN801	A	D	1P
DIODE			
D1	A	D	15B
D2	A	D	7L
D3	B	C	7L
D201	B	C	20H
D202	A	D	15G
D203	B	C	19F
D204	B	C	20D
D205	A	D	22H
D206	B	C	14M
D451	A	D	11H
D601	A	D	7C
D602	A	D	5C
D603	A	D	6C
D604	A	D	5D
D605	A	D	7C
D606	B	C	6D
D608	A	D	6E
D609	A	D	11C
D610	A	D	12E
D611	A	D	11D
D612	A	D	4B
D613	A	D	4B
D614	A	D	17B
D615	A	D	17B
D616	A	D	4D
D801	A	D	3L
D802	A	D	4L
D803	A	D	3L
D804	A	D	2M
D862	A	D	2E
D863	A	D	2D
D901	A	D	20K
D902	A	D	20J
D903	A	D	19O
D904	A	D	19O
D905	A	D	19O
D1102	B	C	17N
FUSE			
F801	A	D	3P
IC			
IC1	A	D	10L
IC101	B	C	8N
IC102	A	D	10K
IC103	A	D	12M
IC104	A	D	12N
IC201	B	C	16G
IC401	A	D	10I
IC451	A	D	12H
IC601	B	C	9E
IC602	A	D	11D
IC603	B	C	11C
IC604	A	D	8I
IC607	A	D	14C
IC608	A	D	15E
IC609	A	D	14B
IC751	A	D	17C
IC901	B	C	18O
IC1001	A	D	20I
IC1104	A	D	17L
IC1105	A	D	18M
COIL			
L1	A	D	8K
L101	A	D	6M
L102	A	D	9P
L103	A	D	10P
L104	A	D	7P
L105	A	D	7P
L106	A	D	13L
L201	A	D	21G
L202	A	D	21B
L203	A	D	21C
L204	A	D	20D
L205	A	D	20D
L206	A	D	20D
L208	A	D	19C
L209	A	D	19B
L210	A	D	20C
L211	A	D	20C
L212	A	D	20B
L213	A	D	19E
L214	A	D	20F
L215	A	D	20F
L216	A	D	21E
L401	A	D	10H
L451	A	D	11H
L601	A	D	6D
L602	A	D	6D
L603	A	D	6H
L604	A	D	7I
L605	A	D	7I
L854	A	D	4E
L901	A	D	21L
L902	A	D	21L
L903	A	D	22O
L904	A	D	22N
L905	A	D	20K
TRANSISTOR			
Q1	B	C	7K
Q2	B	C	6L
Q3	B	C	7J
Q4	B	C	18H
Q5	B	C	18G
Q6	B	C	8K
Q101	B	C	11M
Q201	B	C	14M
Q202	B	C	14M
Q203	B	C	14M
Q204	B	C	21B
Q205	B	C	21C
Q206	B	C	21I
Q207	B	C	21H
Q208	B	C	21H
Q209	B	C	20H
Q210	B	C	21H
Q211	B	C	21H
Q212	B	C	20H
Q213	B	C	20G
Q214	B	C	21H
Q216	B	C	20D
Q218	B	C	19E
Q219	B	C	19B
Q220	B	C	19B
Q221	B	C	19C
Q222	B	C	20C
Q223	B	C	20B
Q224	B	C	20B
Q225	B	C	21E
Q226	B	C	20E
Q227	B	C	21E
Q228	B	C	21F
Q230	B	C	19E
Q401	B	C	9H
Q601	B	C	7C
Q602	B	C	14C
Q603	B	C	11D
Q604	A	D	5E
Q605	A	D	20E
Q606	B	C	16F
Q607	B	C	10F
Q608	B	C	9G
Q609	B	C	7D
Q611	A	D	3C
Q612	B	C	4C
Q851	A	D	3D
Q852	A	D	1E
Q853	A	D	6I
Q854	B	C	5H
Q855	A	D	4G
Q859	A	D	5I
Q901	B	C	19L
Q902	A	D	19L
Q903	A	D	19L
Q904	B	C	19O
Q905	B	C	20O
Q906	B	C	20N
Q907	B	C	21N
Q908	B	C	20N
Q909	B	C	21N
Q910	B	C	22N
Q1106	B	C	17N
Q1107	B	C	16N
Q1108	B	C	17M
RESISTOR			
R1	B	C	9K
R2	A	D	8J
R3	B	C	9K
R4	B	C	8K
R5	B	C	9K
R6	B	C	9K
R7	B	C	9K
R8	B	C	8K
R9	B	C	8L
R10	B	C	8L
R11	A	D	7L
R12	B	C	7L
R13	B	C	7L
R14	B	C	8L
R15	B	C	7L
R16	B	C	16B
R17	B	C	16B
R19	B	C	9L
R20	B	C	9L
R21	B	C	10L
R22	B	C	10L
R23	B	C	10L
R24	B	C	10L
R26	B	C	15B
R29	B	C	7K
R30	B	C	7K
R31	B	C	7L
R32	B	C	7K
R33	A	D	7K
R34	B	C	7J
R35	B	C	7J
R36	B	C	8J
R37	B	C	18H
R38	B	C	18H
R39	B	C	18H
R40	B	C	18G
R41	B	C	18H
R42	B	C	7J
R43	B	C	8J
R101	B	C	7O
R102	B	C	8O
R103	B	C	6N
R104	B	C	7O
R105	B	C	8O
R106	B	C	6O
R107	B	C	7O
R108	B	C	7O
R109	B	C	6N
R110	B	C	6N
R111	B	C	7N
R112	B	C	15L
R113	B	C	6M
R114	B	C	6M
R115	B	C	7M
R116	B	C	7M
R117	B	C	15L
R118	B	C	8M
R119	B	C	9M
R120	B	C	9M
R121	B	C	9M
R122	B	C	10M
R123	B	C	9N
R124	B	C	10M
R125	B	C	9N
R126	B	C	9N
R127	B	C	10M
R128	B	C	9N
R129	B	C	10M
R130	B	C	10M
R131	A	D	10N
R132	B	C	8O
R133	B	C	8O
R134	B	C	10J
R135	B	C	10J
R136	B	C	11J
R137	B	C	11J
R138	B	C	11M
R139	B	C	12M
R140	B	C	12N
R141	B	C	12M
R142	B	C	11M
R143	B	C	11N
R144	B	C	11P
R145	B	C	11P
R201	B	C	14M
R202	B	C	14M
R203	B	C	14M
R204	A	D	15M
R205	B	C	14N
R207	B	C	21I
R208	B	C	21I
R209	B	C	21I
R210	B	C	21H
R211	B	C	21H
R212	B	C	21H
R213	B	C	20H
R214	B	C	21G
R215	B	C	20G
R216	B	C	21H
R217	B	C	21H
R218	B	C	21H
R219	B	C	21G
R221	B	C	21D
R222	B	C	20D
R223	B	C	20D
R224	B	C	20D
R225	B	C	21D
R226	B	C	21B
R227	B	C	20D
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R229	B	C	21C
R230	B	C	19B
R231	B	C	19B
R232	B	C	19B
R233	B	C	18B
R234	B	C	19C
R235	B	C	19C
R236	B	C	19C
R237	B	C	19C
R238	B	C	20C
R239	B	C	20C
R240	B	C	20C
R241	B	C	20B
R242	B	C	15I
R243	B	C	13K
R244	B	C	22D
R245	B	C	22C
R246	B	C	20E
R247	B	C	21E
R248	B	C	20E
R249	B	C	21E
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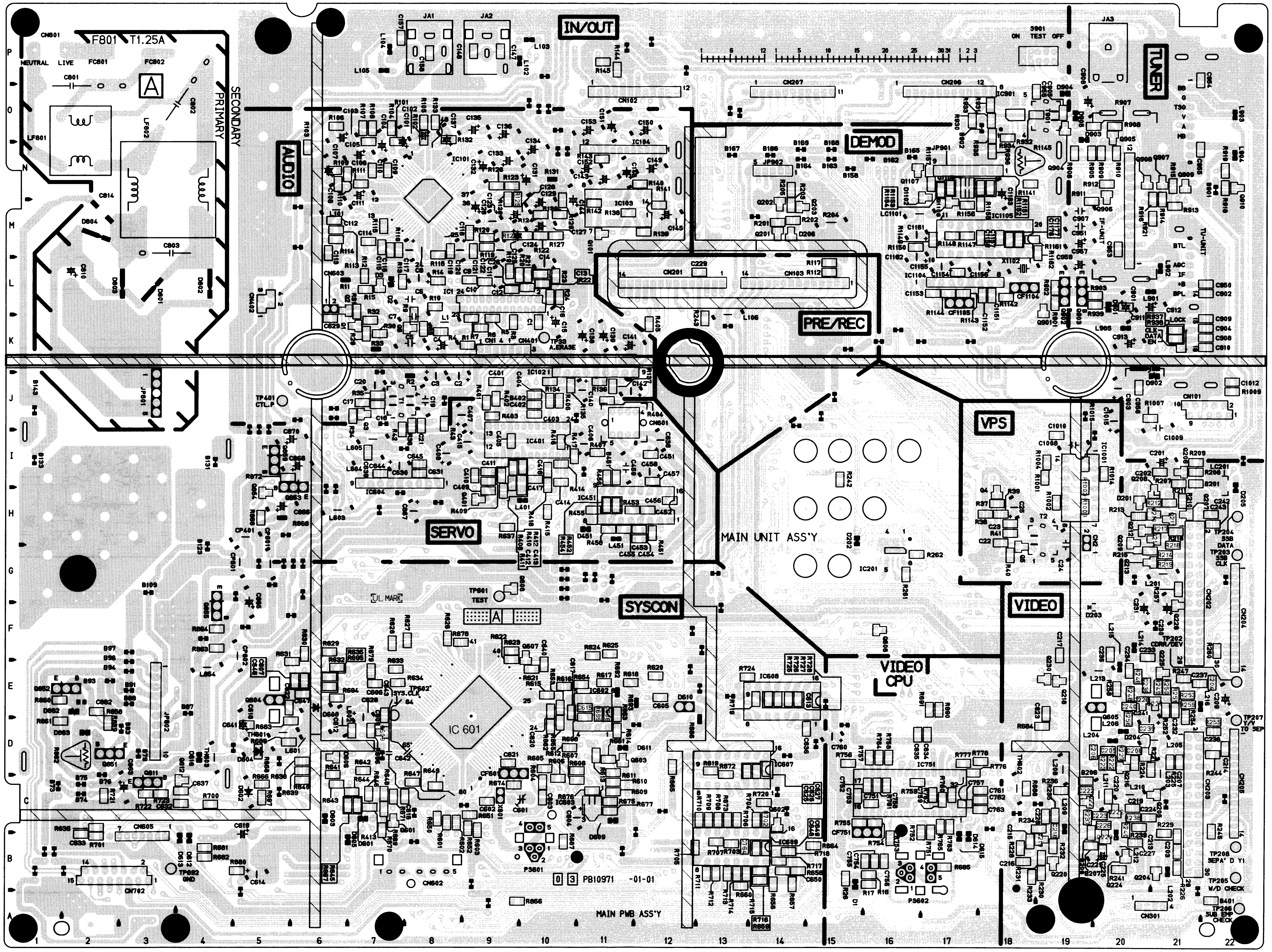
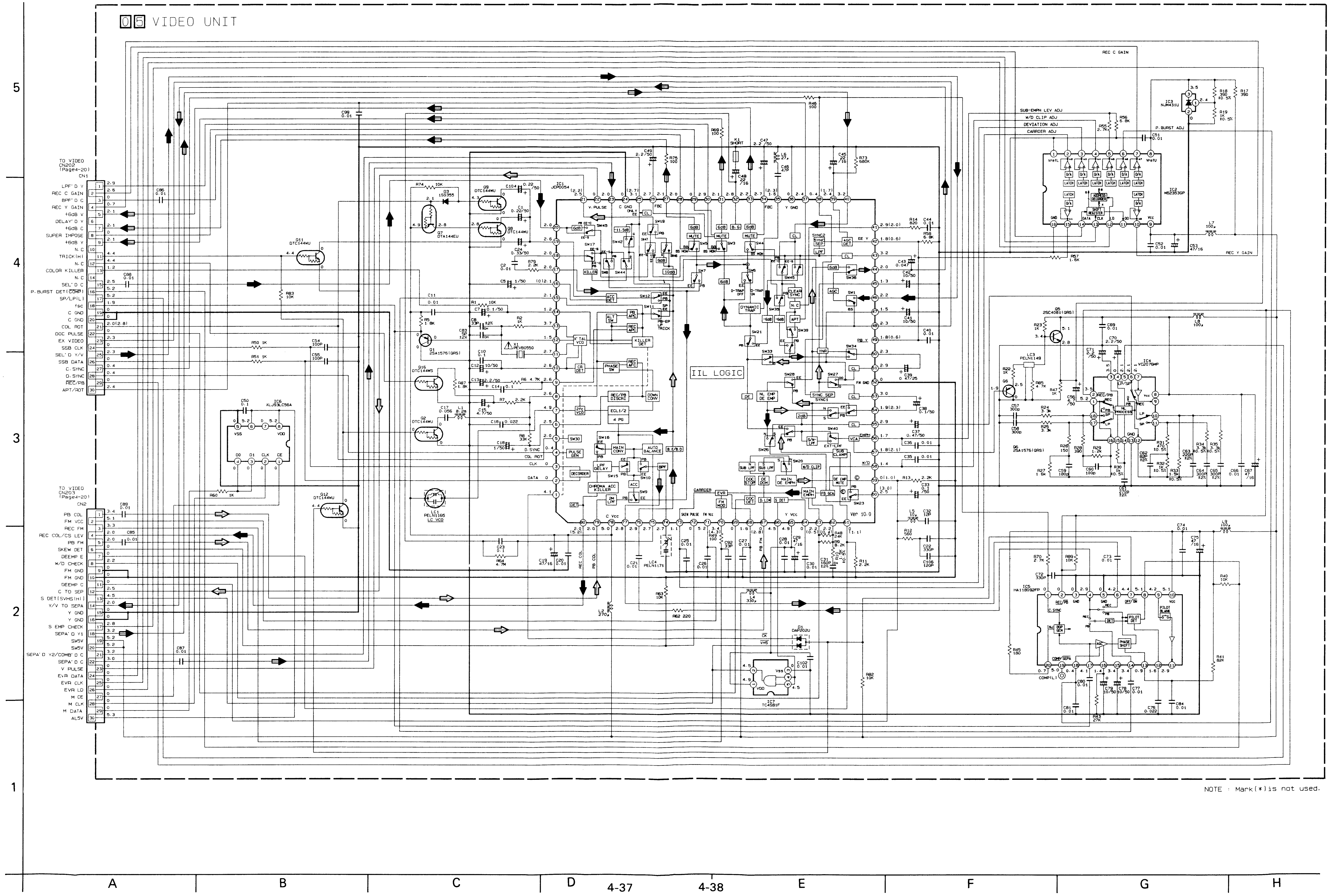
R251	B	C	21E
R252	B	C	21E
R253	B	C	21E
R254	B	C	21E
R255	B	C	22D
R256	B	C	20D
R257	B	C	21G
R258	B	C	20E
R259	B	C	21E
R260	B	C	22F
R261	B	C	16G
R262	B	C	16G
R401	B	C	9J
R402	B	C	9J
R403	B	C	9J
R404	B	C	11J
R405	B	C	12K
R406	B	C	10J
R407	B	C	11I
R408	B	C	9I
R409	B	C	9I
R410	B	C	9I
R411	B	C	9H
R412	B	C	10I
R413	B	C	7C
R414	B	C	10I
R415	B	C	10H
R416	B	C	10I
R417	B	C	10I
R418	B	C	10I
R451	B	C	12H
R452	B	C	11H
R453	B	C	11H
R454	B	C	11H
R455	B	C	11H
R456	B	C	11I
R458	B	C	11H
R601	B	C	8C
R602	B	C	8C
R603	B	C	9C
R604	B	C	10C
R605	B	C	10D
R606	B	C	10C
R607	B	C	11C
R608	B	C	11D
R609	B	C	11C
R610	B	C	11C
R611	B	C	11D
R612	B	C	10D
R613	B	C	11D
R614	B	C	11D
R615	B	C	10E
R616	B	C	10E
R617	B	C	11E
R618	B	C	11E
R619	B	C	13D
R620	B	C	12E
R621	B	C	10E
R622	B	C	9F
R623	B	C	9F
R624	B	C	11F
R625	B	C	11F
R626	B	C	8F
R627	B	C	8F
R628	B	C	7F
R629	B	C	6F
R630	B	C	6F
R631	B	C	6E
R632	B	C	6E
R633	B	C	7E
R634	B	C	7E
R635	B	C	6E
R636	B	C	2C
R637	B	C	9H
R638	B	C	6D
R639	B	C	6D
R640	B	C	6C
R641	B	C	6D
R642	B	C	7D
R643	B	C	6C
R644	B	C	7C
R645	B	C	7C
R646	B	C	7C
R647	B	C	8C
R648	B	C	7C
R649	B	C	8C
R650	B	C	8C
R651	B	C	9C
R652	B	C	9C
R653	B	C	10E
R654	B	C	11E
R655	B	C	10D
R656	B	C	14B
R657	B	C	14B
R658	B	C	14B
R659	B	C	14B
R660	B	C	13B
R661	B	C	11D
R662	B	C	10D
R663	B	C	11E
R664	B	C	15B
R665	B	C	12D
R666	B	C	5C
R667	B	C	7C
R668	B	C	5D
R669	B	C	7C
R670	B	C	7C
R671	B	C	7C
R672	B	C	13D
R673	B	C	13C
R674	B	C	9C
R675	B	C	11C
R676	B	C	11C
R677	B	C	11C
R678	B	C	8F
R679	B	C	7E
R680	B	C	5B
R681	B	C	4B
R682	B	C	4B
R683	B	C	6D
R684	B	C	19D
R685	B	C	17B
R686	A	D	13D
R687	B	C	10B
R688	B	C	18C
R689	B	C	5D
R690	B	C	17E
R691	B	C	17E
R692	A	D	11E
R693	A	D	12E
R694	B	C	6E
R695	B	C	6E
R696	B	C	7D
R697	B	C	5C
R698	B	C	11E
R699	B	C	11E
R700	B	C	4C
R701	B	C	2B
R702	B	C	14C
R703	B	C	13B
R704	B	C	14C
R705	B	C	13B
R706	B	C	13C
R707	B	C	13B
R708	B	C	13C
R709	B	C	13C
R710	B	C	13C
R711	B	C	13B
R712	B	C	13B
R713	B	C	13B
R714	B	C	13B
R715	B	C	13B
R716	B	C	14B
R717	B	C	14B
R718	B	C	14B
R719	B	C	14E
R720	B	C	14C
R721	B	C	2C
R722	B	C	3C
R723	B	C	3C
R724	B	C	13E
R725	B	C	14E
R726	B	C	14E
R727	B	C	14E
R728	B	C	14E
R751	B	C	17C
R752	B	C	17C
R753	B	C	16B
R754	B	C	16C
R755	B	C	15C
R756	B	C	15D
R757	B	C	16D
R758	B	C	16D
R759	B	C	16C
R760	B	C	17C
R761	B	C	16C
R762	B	C	17C
R763	B	C	17C
R764	B	C	16D
R765	B	C	17C
R776	B	C	17D
R777	B	C	17D
R778	B	C	18D
R856	B	C	9A
R858	B	C	2E
R859	B	C	2D
R860	B	C	1E
R861	B	C	1D
R862	A	D	2D
R863	B	C	4F
R864	B	C	4F
R866	B	C	5H
R868	A	D	6H
R872	B	C	5I
R901	B	C	19L
R902	B	C	19L
R903	B	C	20L
R905	B	C	19N
R906	B	C	19N
R907	B	C	19O
R908	B	C	20O
R909	B	C	20N
R910	B	C	20N
R911	B	C	19M
R912	B	C	20N
R913	B	C	21M
R914	B	C	21N
R915	B	C	21N
R916	B	C	21N
R918	B	C	22N
R919	B	C	22N
R921	B	C	21M
R930	B	C	17O
R931	B	C	18O
R932	B	C	18O
R933	B	C	18O
R934	B	C	18O
R935	B	C	18O
R936	B	C	18N
R937	B	C	21K
R938	B	C	21K
R939	B	C	20L
R1001	B	C	19I
R1002	B	C	19H
R1003	B	C	19I
R1004	B	C	19I
R1007	B	C	20J
R1008	B	C	19H
R1009	B	C	22J
R1014	B	C	20I
R1015	B	C	19I
R1141	B	C	18N
R1142	B	C	18L
R1143	B	C	17L
R1144	B	C	17L
R1145	A	D	18N
R1147	B	C	17M
R1148	B	C	17M
R1149	B	C	17M
R1150	B	C	16M
R1151	B	C	18N
R1152	B	C	18N
R1153	B	C	17N
R1154	B	C	17N
R1155	B	C	18M
R1156	B	C	17M
R1157	B	C	17N
R1161	B	C	18M
R1162	B	C	19M
TEST POINT			
TP33	A	D	10K
TP202	A	D	22E
TP203	A	D	22G
TP204	A	D	22H
TP205	A	D	22B
TP206	A	D	22A
TP207	A	D	22D
TP208	A	D	22B
TP401	A	D	5J
TP601	A	D	9G
TP602	A	D	7E
TP692	A	D	3B
OTHER			
IF-UNIT	A	D	20O
TU-UNIT	A	D	21P
X601	A	D	9C
X1102	A	D	18L
CF601	A	D	10D
CF751	A	D	16C
CF1104	A	D	18L
CF1105	A	D	17L
CP401	A	D	5H
CP601	A	D	5G
CP602	A	D	5E
CP801	A	D	5G
JA1	A	D	8P
JA2	A	D	9P
JA3	A	D	20P
JP801	A	D	3J
JP802	A	D	3E
JP901	A	D	18N
JP902	A	D	14N
LC201	A	D	22H
LC1101	A	D	17M
LF801	A	D	2N
LF802	A	D	3M
PS601	A	D	10B
PS602	A	D	16B
S901	A	D	19P
T1	A	D	7J
T2	A	D	18G
T901	A	D	19O
TH601	A	D	6D
TH602	A	D	18C
TH603	A	D	4D


IN/OUT
AUDIO
DEMOD
TUNER
PRE/REC
SERVO
VPS
MAIN UNIT ASS'Y
SYSCON
VIDEO
VIDEO CPU
IC 601
F801 T1.25A
SECONDARY
PRIMARY
NEUTRAL
LIVE
UL MARK
PB10971 -01-01
MAIN PWB ASS'Y
TP601 TEST
TP205 W/D CHECK
TP206 SUB EMP CHECK
TP207 V/V TO SEP
TP208 SEPA' D Y1
TP204 SSB DATA
TP203 SSB CLK
TP202 CORR/DEV
A.ERASE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

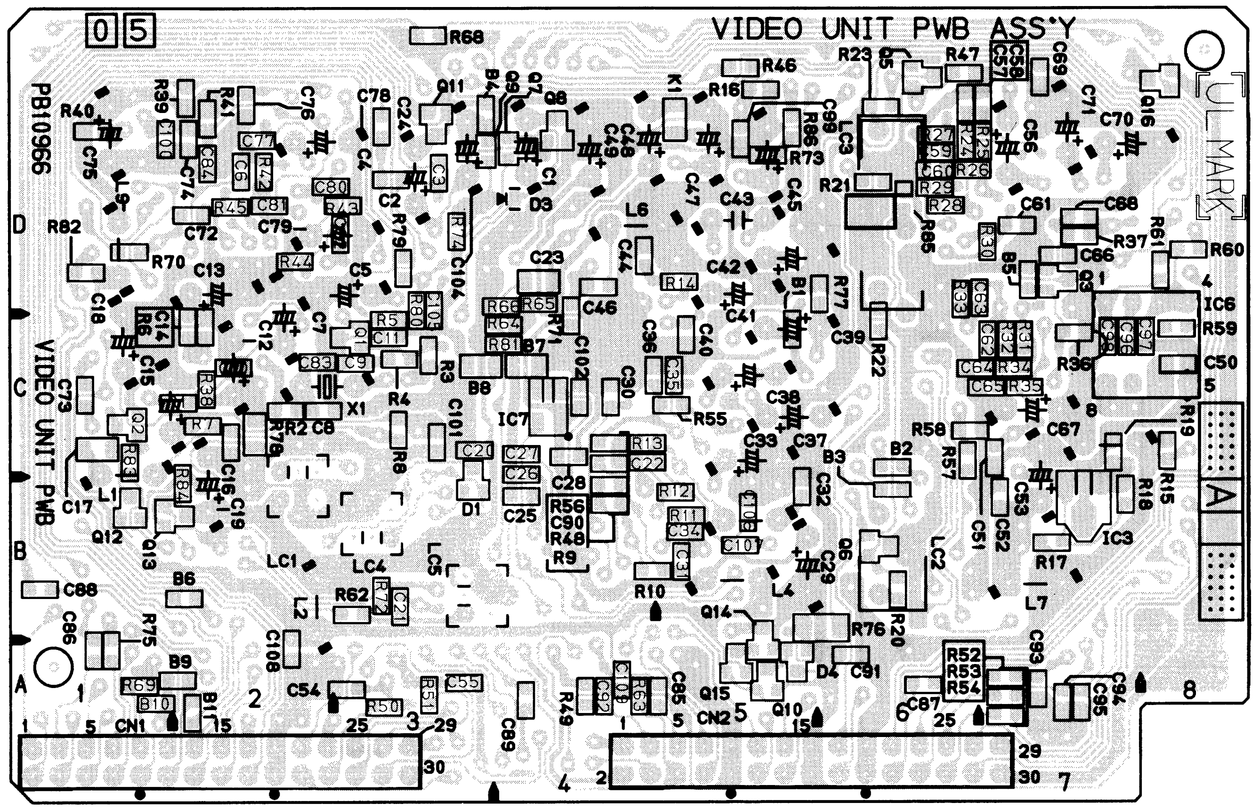
4.17 VIDEO UNIT SCHEMATIC DIAGRAM


05 VIDEO UNIT
TO VIDEO CN202 (Page4-20) CN1
LPF'D Y
REC C GAIN
BPF'D C
REC Y GAIN
+6dB V
DELAY'D Y
+6dB C
SUPER IMPOSE
+6dB Y
N.C
TRICK(H)
N.C
COLOR KILLER
N.C
SEL'D C
P.BURST DET(COMP)
SP/LP(L)
fsc
C GND
C GND
COL ROT
DOC PULSE
EX VIDEO
SSB CLK
SEL'D Y/V
SSB DATA
C.SYNC
D.SYNC
REC/PB
APT/ROT
TO VIDEO CN203 (Page4-20) CN2
PB COL
FM VCC
REC FM
REC COL/CS LEV
PB FM
SKEW DET
DEEMP E
W/D CHECK
FM GND
FM GND
DEEMP C
C TO SEP
S DET(SVHS(H))
Y/V TO SEPA
Y GND
Y GND
S EMP CHECK
SEPA'D Y1
SW5V
SW5V
SEPA'D Y2/COMB'D C
SEPA'D C
V PULSE
EVR DATA
EVR CLK
EVR LD
M CE
M CLK
M DATA
AL5V
IC1 JCP0054
IIL LOGIC
IC2 M62353GP
IC3 NJM431U
IC4 VC2076MP
IC5 HA118092FP
IC6 XLJ93LC56A
IC7 TC4581F
LC1 PELN1165 LC VCO
REC C GAIN
REC Y GAIN
SUB-EMPH LEV ADJ
W/D CLIP ADJ
DEVIATION ADJ
CARRIER ADJ
P.BURST ADJ
A
B
C
D
E
F
G
H
1
2
3
4
5

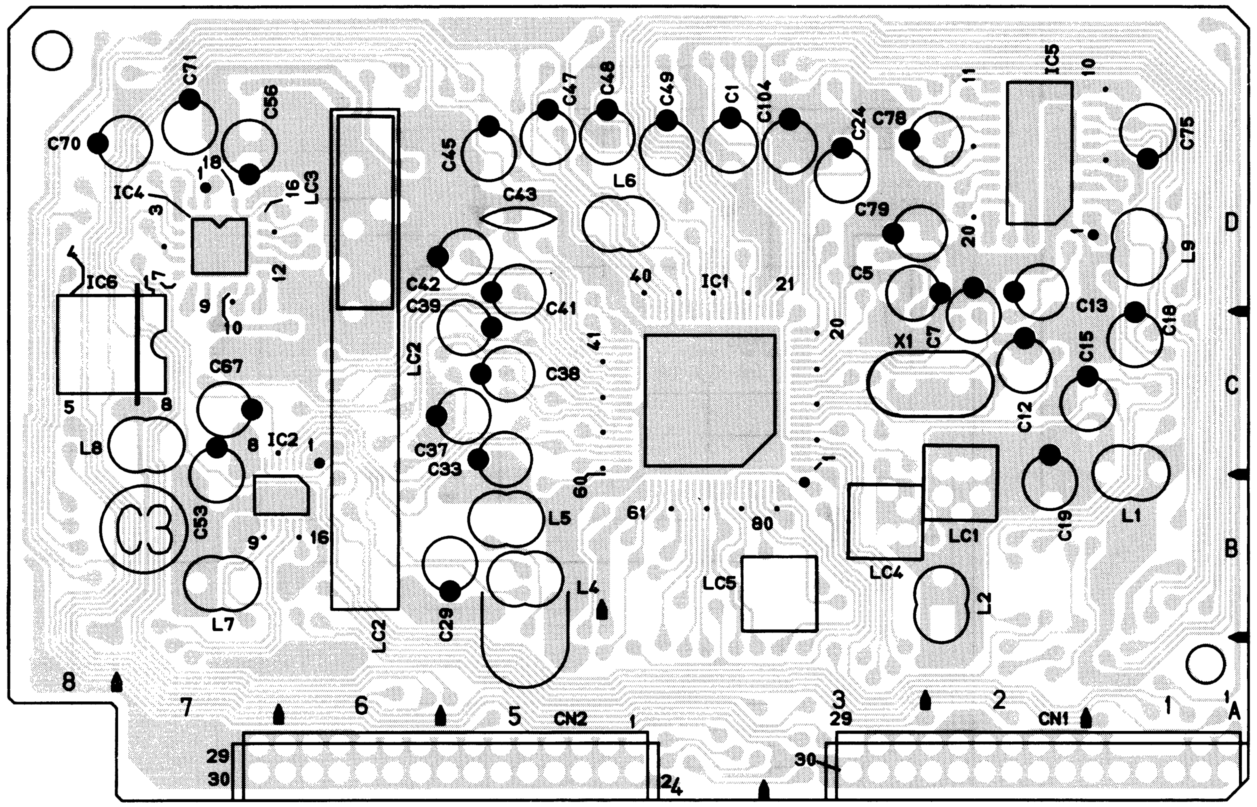
NOTE : Mark(*)is not used.

4.18 VIDEO UNIT CIRCUIT BOARD

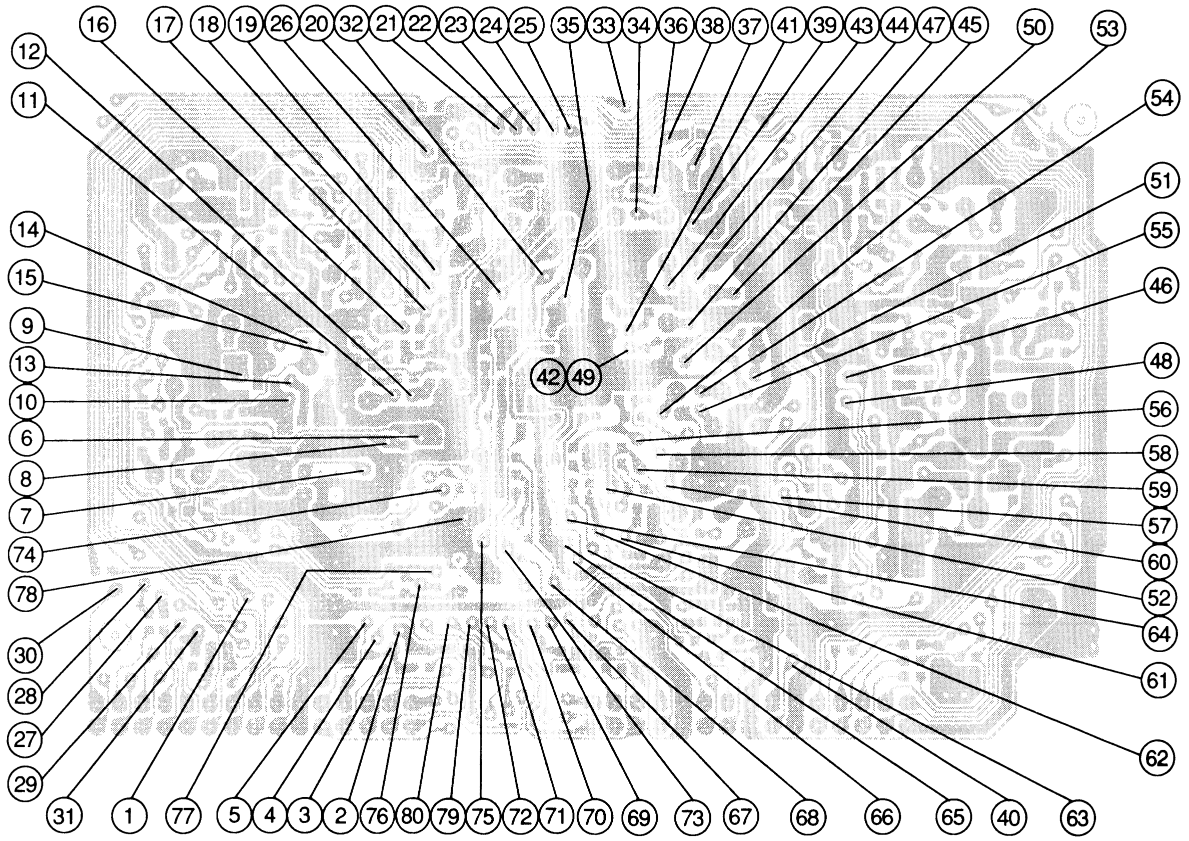
—FOIL SIDE (B)—


05
VIDEO UNIT PWB ASS'Y
PB10966
VIDEO UNIT PWB
UL MARK
A
B
C
D
1
2
3
4
5
6
7
8
CN1
CN2
IC7
X1
D1
D3
D4
IC3
IC6
L4
L6
L7
LC1
LC4
LC5
Q14
Q15
Q10
R68
R46
C54
C55
C89
R49
29
30
25
15

—COMPONENT SIDE (A)—


C70
C71
C56
IC4
C45
C47
C48
C49
C1
C104
C24
C78
IC5
C75
C43
L6
L8
IC6
C42
C39
C41
C38
IC1
C79
C5
C13
C16
C15
C7
X1
C12
C67
IC2
C37
C33
C53
LC2
C29
L5
L4
LC5
LC4
LC1
L2
C19
L1
L9
L7
C3
40
21
20
41
60
61
80
1
CN1
CN2
8
7
6
5
4
3
2
1
A
B
C
D
29
30
24

—IC1 PIN NUMBER LOCATION—


⑯
⑰
⑱
⑲
㉖
⑳
㉜
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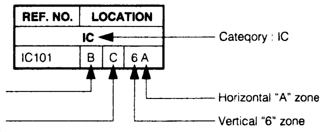
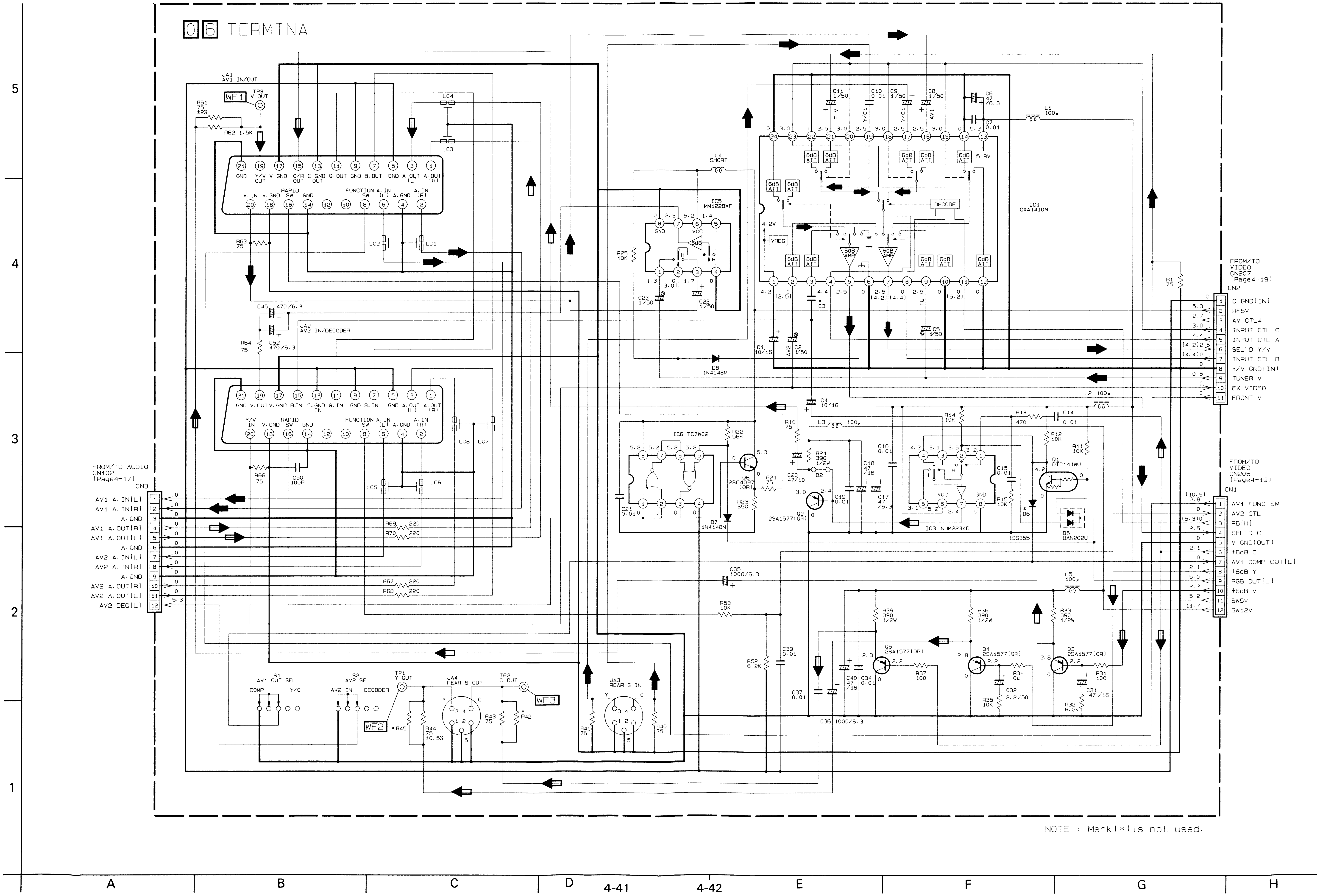
㉕
㉟
㉝
㉞
㊱
㊳
㊲
㊶
㊴
㊸
㊹
㊼
㊺
㊿
(53)
⑫
⑪
(54)
(51)
(55)
⑭
⑮
⑨
⑬
⑩
⑥
⑧
⑦
(74)
(78)
㊻
㊽
(56)
(58)
(59)
(57)
(60)
(52)
(64)
(61)
(62)
㊷
㊾
㉚
㉘
㉗
㉙
㉛
①
(77)
⑤
④
③
②
(76)
(80)
(79)
(75)
(72)
(71)
(70)
(69)
(73)
(67)
(68)
(66)
(65)
㊵
(63)


REF. NO.
LOCATION
IC
IC101
B
C
6 A
Categqry : IC
B : Foil side
(A : Component side)
C : Chip Component
(D : Discrete component)
Horizontal "A" zone
Vertical "6" zone

COMPONENT PARTS LOCATION GUIDE

REF.NO.	LOCATION		
CAPACITOR			
C1	A	D	5B
C2	B	C	5B
C3	B	C	5B
C4	B	C	5A
C5	A	D	6B
C6	B	C	6B
C7	A	D	6C
C8	B	C	6C
C9	B	C	6C
C10	B	C	6C
C11	B	C	5C
C12	A	D	6C
C13	A	D	7B
C14	B	C	7B
C15	A	D	7C
C16	B	C	6C
C17	B	C	7C
C18	A	D	7C
C19	A	D	7D
C20	B	C	5C
C21	B	C	5D
C22	B	C	4C
C23	B	C	4B
C24	A	D	5B
C25	B	C	5C
C26	B	C	5C
C27	B	C	5C
C28	B	C	4C
C29	A	D	3D
C30	B	C	4C
C31	B	C	4D
C32	B	C	3C
C33	A	D	3C
C34	B	C	4D
C35	B	C	4C
C36	B	C	4C
C37	A	D	3C
C38	A	D	3C
C39	A	D	3B
C40	B	C	4C
C41	A	D	3B
C42	A	D	3B
C43	A	D	3B
C44	B	C	4B
C45	A	D	3B
C46	B	C	4B
C47	A	D	3A
C48	A	D	4A
C49	A	D	4B
C50	B	C	1C
C51	B	C	2C
C52	B	C	2D
C53	A	D	1D
C54	B	C	6E
C55	B	C	5E
C56	A	D	2A
C57	B	C	2A
C58	B	C	2A
C59	B	C	2A
C60	B	C	2A
C61	B	C	2B
C62	B	C	2C
C63	B	C	2B
C64	B	C	2C
C65	B	C	2C
C66	B	C	1B
C67	A	D	1C
C68	B	C	1B
C69	B	C	1A
C70	A	D	1A
C71	A	D	1A
C72	B	C	7B
C73	B	C	7C
C74	B	C	7A
C75	A	D	7A
C76	B	C	6A
C77	B	C	6A
C78	A	D	6A
C79	A	D	6B
C80	B	C	6B
C81	B	C	6B
C82	B	C	6B
C83	B	C	6C
C84	B	C	7A
C85	B	C	4E
C86	B	C	7D
C87	B	C	2E
C88	B	C	8D
C89	B	C	5E
C90	B	C	4C
C91	B	C	3D
C92	B	C	4E
C93	B	C	1E
C94	B	C	1E
C95	B	C	1E
C96	B	C	1C
C97	B	C	1C
C98	B	C	1C
C99	B	C	3A
C100	B	C	7A
C101	B	C	5C
C102	B	C	4C
C104	A	D	5B
C105	B	C	5B
C106	B	C	3D
C107	B	C	3D
C108	B	C	6D
C109	B	C	4E
CONNECTOR			
CN1	A	D	8E
CN2	A	D	4E
DIODE			
D1	B	C	5C
D3	B	C	5B
D4	B	C	3E
IC			
IC1	A	C	4C
IC2	A	C	2C
IC3	B	C	1D
IC4	A	C	1B
IC5	A	C	6A
IC6	A	D	1B
IC7	B	C	4C
COIL			
L1	A	D	7C
L2	A	D	6D
L4	A	D	3D
L5	A	D	3D
L6	A	D	4B
L7	A	D	2D
L8	A	D	1C
L9	A	D	7B
TRANSISTOR			
Q1	B	C	6C
Q2	B	C	7C
Q3	B	C	1B
Q5	B	C	2A
Q6	B	C	2D
Q7	B	C	5A
Q8	B	C	4A
Q9	B	C	5A
Q10	B	C	3E
Q11	B	C	5A
Q12	B	C	7D
Q13	B	C	7D
Q14	B	C	3D
Q15	B	C	3E
Q16	B	C	1A
RESISTOR			
R1	B	C	7C
R2	B	C	6C
R3	B	C	5C
R4	B	C	5C
R5	B	C	5B
R6	B	C	7B
R7	B	C	7C
R8	B	C	5C
R9	B	C	4D
R10	B	C	4D
R11	B	C	4D
R12	B	C	4C
R13	B	C	4C
R14	B	C	4B
R15	B	C	1C
R16	B	C	3A
R17	B	C	1D
R18	B	C	1C
R19	B	C	1C
R20	B	C	2D
R21	B	C	2B
R22	B	C	2B
R23	B	C	2A
R24	B	C	2A
R25	B	C	2A
R26	B	C	2A
R27	B	C	2A
R28	B	C	2B
R29	B	C	2B
R30	B	C	2B
R31	B	C	1C
R32	B	C	2C
R33	B	C	2B
R34	B	C	2C
R35	B	C	1C
R36	B	C	1B
R37	B	C	1B
R38	B	C	7C
R39	B	C	7A
R40	B	C	7A
R41	B	C	7A
R42	B	C	6B
R43	B	C	6B
R44	B	C	6B
R45	B	C	6B
R46	B	C	3A
R47	B	C	2A
R48	B	C	4C
R49	B	C	4E
R50	B	C	5E
R51	B	C	5E
R52	B	C	2E
R53	B	C	2E
R54	B	C	2E
R55	B	C	4C
R56	B	C	4C
R57	B	C	2C
R58	B	C	2C
R59	B	C	1B
R60	B	C	?B
R61	B	C	1B
R62	B	C	6D
R63	B	C	4E
R64	B	C	5B
R65	B	C	4B
R66	B	C	5B
R68	B	C	5A
R69	B	C	7E
R70	B	C	7B
R71	B	C	4B
R72	B	C	5D
R73	B	C	3A
R74	B	C	5B
R75	B	C	7D
R76	B	C	3D
R77	B	C	3B
R78	B	C	6C
R79	B	C	5B
R80	B	C	5B
R81	B	C	5C
R82	B	C	7B
R83	B	C	7C
R84	B	C	7C
R85	B	C	2B
R86	B	C	3A
OTHER			
X1	A	D	6C
K1	B	C	4A
LC1	A	D	6C
LC2	A	D	2D
LC3	A	D	2A
LC4	A	D	5D
LC5	A	D	5D
PC0313	B	C	1D

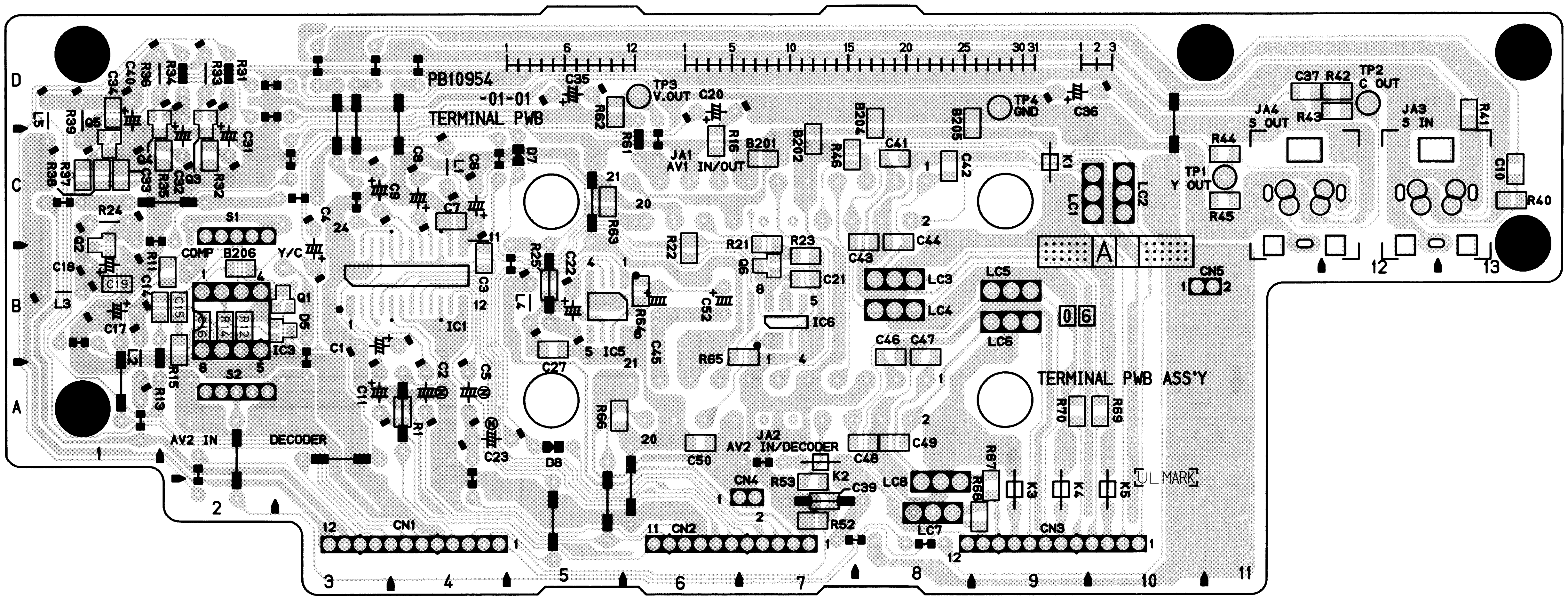
4.19 TERMINAL SCHEMATIC DIAGRAM



06 TERMINAL
JA1 AV1 IN/OUT
JA2 AV2 IN/DECODER
WF1
TP3 V OUT
R61 75 ±2%
R62 1.5K
R63 75
R64 75
R66 75
C45 470/6.3
C52 470/6.3
C50 100P
LC1
LC2
LC3
LC4
LC5
LC6
LC7
LC8
GND
Y/V OUT
V.GND
C/R OUT
C.GND OUT
G.OUT
B.OUT
A.OUT (L)
A.OUT (R)
V.IN
RAPID SW
FUNCTION SW
A.IN (L)
A.GND
A.IN (R)
V.OUT
R.IN
C.GND IN
G.IN
B.IN
Y/V IN
FROM/TO AUDIO CN102 (Page4-17)
CN3
1 AV1 A.IN(L)
2 AV1 A.IN(R)
3 A.GND
4 AV1 A.OUT(R)
5 AV1 A.OUT(L)
6 A.GND
7 AV2 A.IN(L)
8 AV2 A.IN(R)
9 A.GND
10 AV2 A.OUT(R)
11 AV2 A.OUT(L)
12 AV2 DEC(L)
R67 220
R68 220
R69 220
R70 220
S1 AV1 OUT SEL
COMP
Y/C
S2 AV2 SEL
AV2 IN
DECODER
TP1 Y OUT
WF2
R45
R44 75 ±0.5%
JA4 REAR S OUT
R43 75
R42
TP2 C OUT
WF3
JA3 REAR S IN
R41 75
R40 75
L4 SHORT
IC5 MM1228XF
VCC
6dB
R25 10K
C23 1/50
C22 1/50
D8 1N4148M
IC6 TC7W02
R22 56K
Q6 2SC4097(QR)
R21 75
R23 390
D7 1N4148M
C21 0.01
C35 1000/6.3
R53 10K
R52 6.2K
C39 0.01
C37 0.01
C36 1000/6.3
C40 47/16
C34 0.01
IC1 CXA1410M
C11 1/50
C10 0.01
C9 1/50
C8 1/50
C6 47/6.3
C7 0.01
L1 100μ
6dB ATT
6dB AMP
DECODE
VREG
5-9V
C1 10/16
C2 1/50
C3
C5 1/50
C4 10/16
L3 100μ
R16 75
R24 390 1/2W
C20 47/10
Q2 2SA1577(QR)
C19 0.01
C18 47/16
C17 47/6.3
C16 0.01
IC3 NJM2234D
R14 10K
R13 470
C14 0.01
R12 10K
R11 10K
Q1 DTC144WU
C15 0.01
R15 10K
D6
1SS355
D5 DAN202U
L2 100μ
R1 75
L5 100μ
R39 390 1/2W
Q5 2SA1577(QR)
R37 100
R36 390 1/2W
Q4 2SA1577(QR)
R34 0Ω
C32 2.2/50
R35 10K
R33 390 1/2W
Q3 2SA1577(QR)
R31 100
C31 47/16
R32 8.2K
FROM/TO VIDEO CN207 (Page4-19)
CN2
1 C GND(IN)
2 RF5V
3 AV CTL4
4 INPUT CTL C
5 INPUT CTL A
6 SEL'D Y/V
7 INPUT CTL B
8 Y/V GND(IN)
9 TUNER V
10 EX VIDEO
11 FRONT V
FROM/TO VIDEO CN206 (Page4-19)
CN1
1 AV1 FUNC SW
2 AV2 CTL
3 PB(H)
4 SEL'D C
5 V GND(OUT)
6 +6dB C
7 AV1 COMP OUT(L)
8 +6dB Y
9 RGB OUT(L)
10 +6dB V
11 SW5V
12 SW12V
1
2
3
4
5
A
B
C
D
E
F
G
H

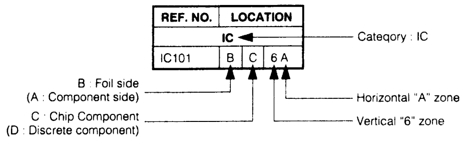
NOTE : Mark(*)is not used.

4.20 TERMINAL CIRCUIT BOARD


PB10954
-01-01
TERMINAL PWB
TERMINAL PWB ASS'Y
TP3 V.OUT
TP4 GND
TP1 Y OUT
TP2 C OUT
JA1 AV1 IN/OUT
JA2 AV2 IN/DECODER
JA3 S IN
JA4 S OUT
AV2 IN
DECODER
COMP
Y/C
S1
S2
IC1
IC3
IC5
IC6
CN1
CN2
CN3
CN4
CN5
LC1
LC2
LC3
LC4
LC5
LC6
LC7
LC8
K1
K2
K3
K4
K5
UL MARK
A
B
C
D
1
2
3
4
5
6
7
8
9
10
11
12
13

COMPONENT PARTS LOCATION GUIDE

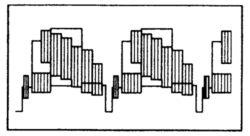
REF.NO.	LOCATION		
CAPACITOR			
C1	A	D	4C
C2	A	D	4B
C3	B	C	5C
C4	A	D	3C
C5	A	D	5B
C6	A	D	5D
C7	B	C	4D
C8	A	D	4D
C9	A	D	4D
C10	B	C	14D
C11	A	D	4B
C14	B	C	2C
C15	B	C	2C
C16	B	C	2C
C17	A	D	2C
C18	A	D	1C
C19	B	C	1C
C20	A	D	6E
C21	B	C	7C
C22	A	D	5C
C23	A	D	5B
C27	B	C	5C
C31	A	D	2E
C32	A	D	2E
C33	B	C	2D
C34	B	C	1E
C35	A	D	5E
C36	A	D	10E
C37	B	C	12E
C39	B	C	8A
C40	A	D	2E
C41	B	C	8D
C42	B	C	9D
C43	B	C	8D
C44	B	C	8D
C45	A	D	6C
C46	B	C	8C
C47	B	C	8C
C48	B	C	8B
C49	B	C	8B
C50	B	C	7B
C52	A	D	7C
CONNECTOR			
CN1	A	D	5A
CN2	A	D	7A
CN3	A	D	10A
CN4	A	D	7A
CN5	A	D	11C
DIODE			
D5	B	C	3C
D7	A	D	5D
D8	A	D	5B
IC			
IC1	B	C	4C
IC3	A	D	2C
IC5	B	C	6C
IC6	B	C	7C
COIL			
L1	A	D	4D
L2	A	D	2B
L3	A	D	1C
L4	A	D	5C
L5	A	D	1D
TRANSISTOR			
Q1	B	C	3C
Q2	B	C	1D
Q3	B	C	2E
Q4	B	C	2E
Q5	B	C	1D
Q6	B	C	7C
RESISTOR			
R1	B	C	4B
R11	B	C	2C
R12	B	C	3C
R13	A	D	2B
R14	B	C	2C
R15	B	C	2C
R16	B	C	7D
R21	B	C	7D
R22	B	C	6C
R23	B	C	7C
R24	A	D	2D
R25	B	C	5C
R31	A	D	2E
R32	B	C	2D
R33	A	D	2E
R34	A	D	2E
R35	B	C	2D
R36	A	D	2E
R37	B	C	1D
R38	B	C	1D
R39	A	D	1D
R40	B	C	13D
R41	B	C	13E
R42	B	C	12E
R43	B	C	12E
R44	B	C	11D
R45	B	C	11D
R46	B	C	8D
R52	B	C	7A
R53	B	C	7A
R61	A	D	6D
R62	B	C	6E
R63	B	C	6D
R64	B	C	6C
R65	B	C	7C
R66	B	C	6B
R67	B	C	9A
R68	B	C	9A
R69	B	C	10B
R70	B	C	10B
SWITCH			
S1	A	D	3C
S2	A	D	3B
TEST POINT			
TP1	A	D	11D
TP2	A	D	12E
TP3	A	D	6E
TP4	A	D	9E
OTHER			
JA1	A	D	7D
JA2	A	D	7B
JA3	A	D	13D
JA4	A	D	12D
K1	A	D	10D
K2	A	D	8B
K3	A	D	9A
K4	A	D	10A
K5	A	D	10A
LC1	A	D	10D
LC2	A	D	10D
LC3	A	D	8C
LC4	A	D	8C
LC5	A	D	9C
LC6	A	D	9C
LC7	A	D	9A
LC8	A	D	9A


REF. NO.
LOCATION
IC
IC101
B
C
6 A
Categqry : IC
B : Foil side
(A : Component side)
C : Chip Component
(D : Discrete component)
Horizontal "A" zone
Vertical "6" zone

WAVEFORMS

WF1

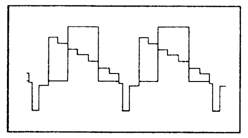
TP3
V OUT



REC/PB1.0Vp-p
50mV/20μsec/DIV

WF2

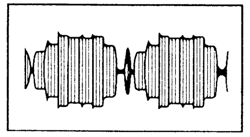
TP1
Y OUT



REC/PB2.0Vp-p
0 1V/20μsec/DIV

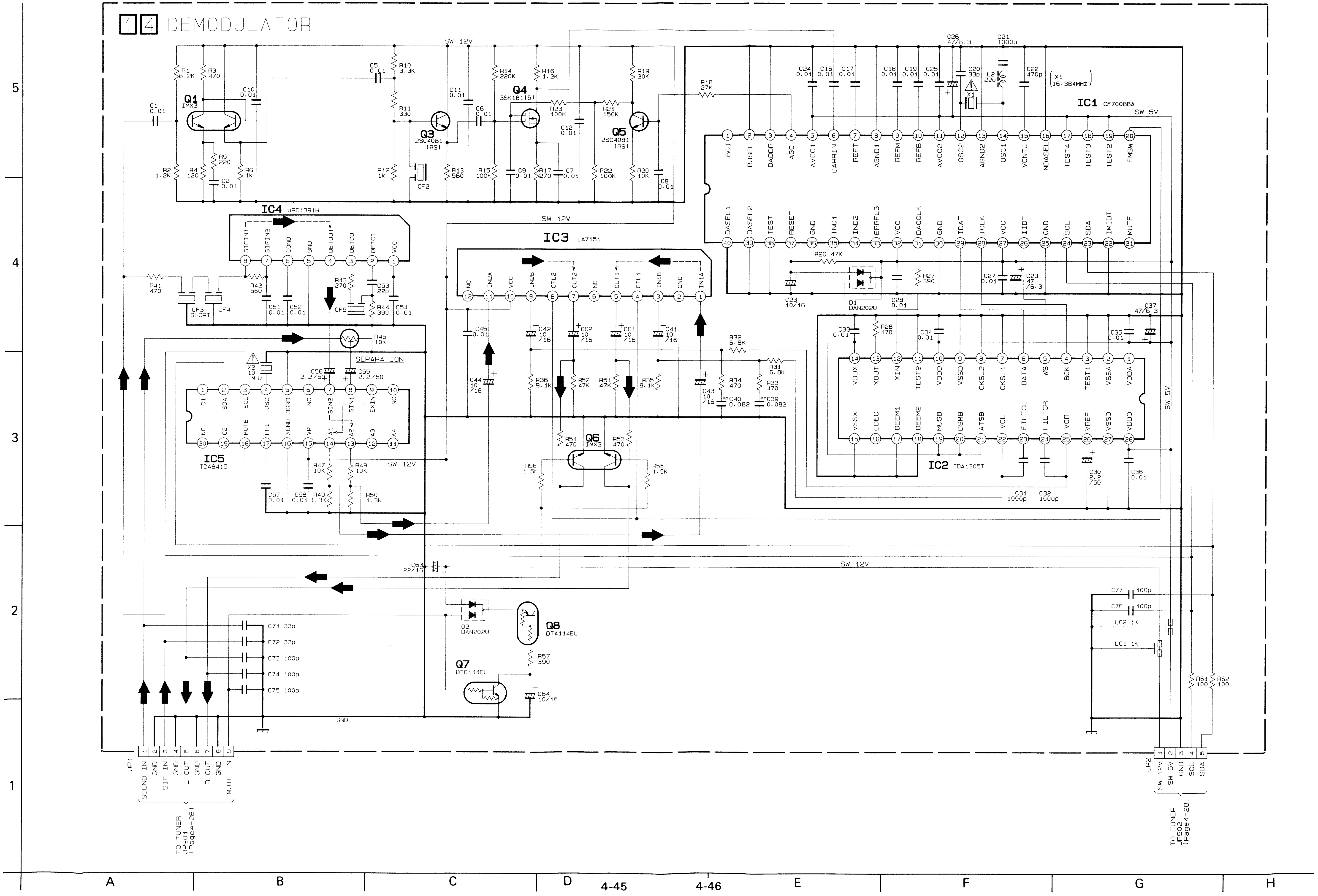
WF3

TP2
C OUT



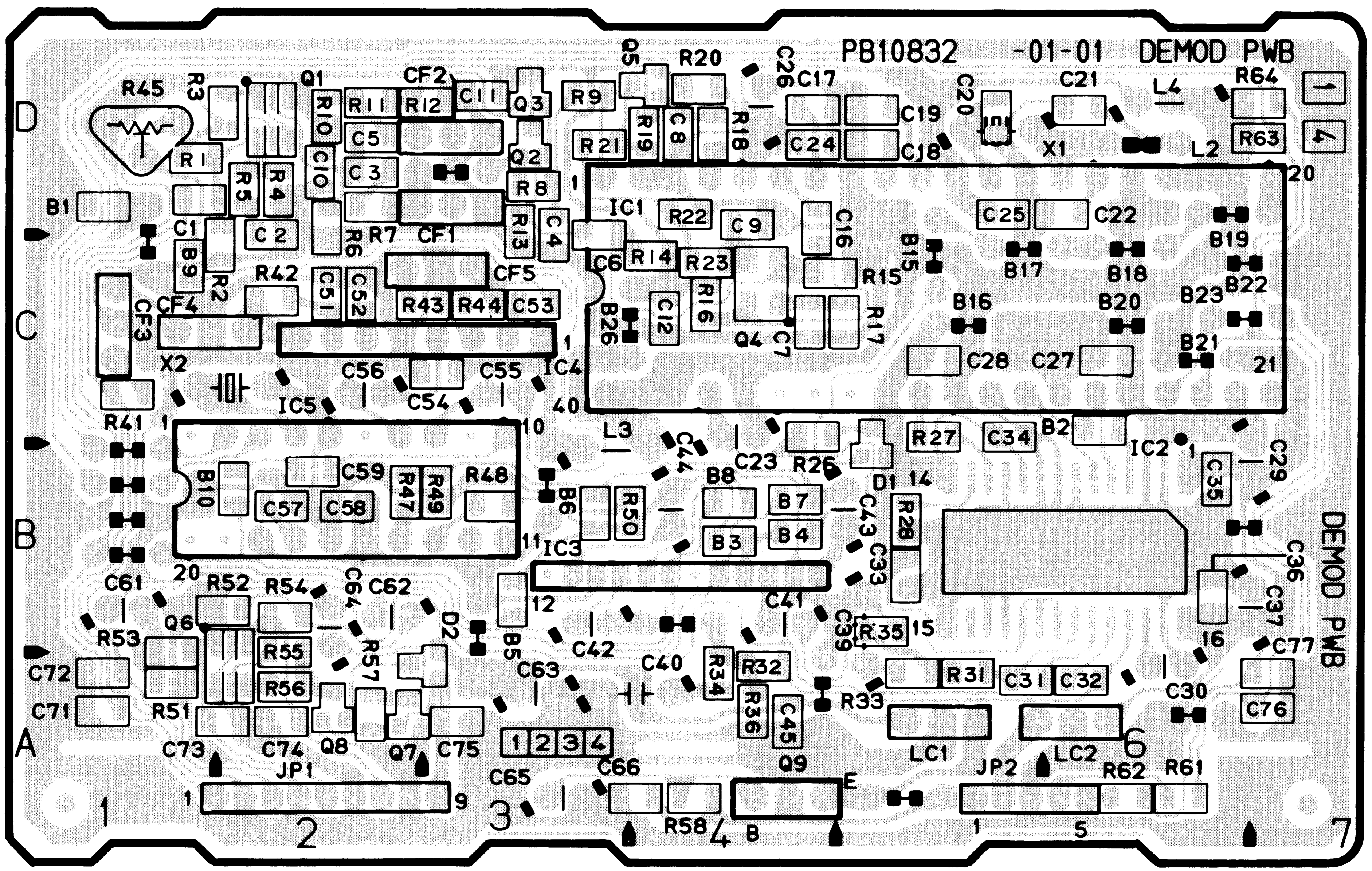
REC/PB1.3Vp-p
50mV/20μsec/DIV

4.21 DEMODULATOR SCHEMATIC DIAGRAM (for HR-S7000EH)



14 DEMODULATOR
SW 12V
SW 5V
GND
Q1 IMX3
Q3 2SC4081 (RS)
Q4 3SK181(5)
Q5 2SC4081 (RS)
Q6 IMX3
Q7 DTC144EU
Q8 DTA114EU
IC1 CF70088A
IC2 TDA1305T
IC3 LA7151
IC4 uPC1391H
IC5 TDA8415
D1 DAN202U
D2 DAN202U
X1 16.384MHz
X2 10 MHz
L2 22u
CF2
CF3 SHORT
CF4
CF5
SEPARATION
R1 8.2K
R2 1.2K
R3 470
R4 120
R5 220
R6 1K
R10 3.3K
R11 330
R12 1K
R13 560
R14 220K
R15 100K
R16 1.2K
R17 270
R18 27K
R19 30K
R20 10K
R21 150K
R22 100K
R23 100K
R26 47K
R27 390
R28 470
R31 6.8K
R32 6.8K
R33 470
R34 470
R35 9.1K
R36 9.1K
R41 470
R42 560
R43 270
R44 390
R45 10K
R47 10K
R48 10K
R49 1.3K
R50 1.3K
R51 47K
R52 47K
R53 470
R54 470
R55 1.5K
R56 1.5K
R57 390
R61 100
R62 100
C1 0.01
C2 0.01
C5 0.01
C6 0.01
C7 0.01
C8 0.01
C9 0.01
C10 0.01
C11 0.01
C12 0.01
C16 0.01
C17 0.01
C18 0.01
C19 0.01
C20 33p
C21 1000p
C22 470p
C23 10/16
C24 0.01
C25 0.01
C26 47/6.3
C27 0.01
C28 0.01
C29 47/6.3
C30 2.2/50
C31 1000p
C32 1000p
C33 0.01
C34 0.01
C35 0.01
C36 0.01
C37 47/6.3
C39 0.082
C40 0.082
C41 10/16
C42 10/16
C43 10/16
C44 10/16
C45 0.01
C51 0.01
C52 0.01
C53 22p
C54 0.01
C55 2.2/50
C56 2.2/50
C57 0.01
C58 0.01
C61 10/16
C62 10/16
C63 22/16
C64 10/16
C71 33p
C72 33p
C73 100p
C74 100p
C75 100p
C76 100p
C77 100p
LC1 1K
LC2 1K
BGI BUSEL DADDR AGC AVCC1 CARRIN REFT AGND1 REFM REFB AVCC2 OSC2 AGND2 OSC1 VCNTL NDASEL TEST4 TEST3 TEST2 FMSW
DASEL1 DASEL2 TEST RESET GND IND1 IND2 EARFLG VCC DACCLK GND IDAT ICLK VCC IIDT GND SCL SDA IMIDT MUTE
SIFIN1 SIFIN2 COND GND DETOUT DETCO DETCI VCC
NC IN2A VCC IN2B CTL2 OUT2 NC OUT1 CTL1 IN1B GND IN1A
C1 SDA SCL OSC DGND NC SIN2 SIN1 EXIN NC
NC C2 MUTE PRI AGND VP A1 A2 A3 A4
VDDX XOUT XIN TEST2 VDDD VSSD CKSL2 CKSL1 DATA WS BCK TEST1 VSSA VDDA
VSSX CDEC DEEM1 DEEM2 MUSB DSMB ATSB VOL FILTCL FILTCR VOR VREF VSSO VDDO
JP1
SOUND IN
GND
SIF IN
GND
L OUT
GND
R OUT
GND
MUTE IN
TO TUNER JP901 (Page4-28)
JP2
SW 12V
SW 5V
GND
SCL
SDA
TO TUNER JP902 (Page4-28)
1
2
3
4
5
A
B
C
D
E
F
G
H

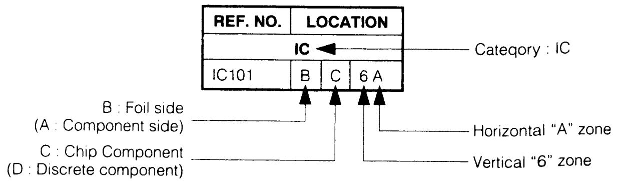
4.22 DEMODULATOR CIRCUIT BOARD (for HR-S7000EH)


PB10832 -01-01 DEMOD PWB
DEMOD PWB
A
B
C
D
1
2
3
4
5
6
7
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
IC1
IC2
IC3
IC4
IC5
X1
X2
L2
L3
L4
CF1
CF2
CF3
CF4
CF5
JP1
JP2
LC1
LC2
D1
D2
R45
R64
R63
C77
C76
C72
C71
E
B

COMPONENT PARTS LOCATION GUIDE

REF.NO.	LOCATION		
CAPACITOR			
C1	B	C	1D
C2	B	C	2D
C3	B	C	2D
C4	B	C	3D
C5	B	C	2D
C6	B	C	3D
C7	B	C	4C
C8	B	C	4D
C9	B	C	4D
C10	B	C	2D
C11	B	C	3D
C12	B	C	4C
C16	B	C	4D
C17	B	C	4D
C18	B	C	5D
C19	B	C	5D
C20	B	C	5D
C21	B	C	6D
C22	B	C	6D
C23	A	D	4C
C24	B	C	4D
C25	B	C	5D
C26	A	D	4D
C27	B	C	6C
C28	B	C	5C
C29	A	D	7C
C30	A	D	6B
C31	B	C	5B
C32	B	C	6B
C33	B	C	5B
C34	B	C	5C
C35	B	C	6C
C36	B	C	6B
C37	A	D	7B
C39	A	D	5B
C40	A	D	4B
C41	A	D	4B
C42	A	D	3B
C43	A	D	5C
C44	A	D	4C
C45	B	C	4A
C51	B	C	2C
C52	B	C	2C
C53	B	C	3C
C54	B	C	3C
C55	A	D	3C
C56	A	D	2C
C57	B	C	2B
C58	B	C	2B
C59	B	C	2C
C61	A	D	1B
C62	A	D	2B
C63	A	D	3B
C64	A	D	2B
C65	A	D	3A
C66	B	C	4A
C71	B	C	1A
C72	B	C	1B
C73	B	C	2A
C74	B	C	2A
C75	B	C	3A
C76	B	C	7B
C77	B	C	7B
CF1	A	D	2D
DIODE			
D1	B	C	5C
D2	B	C	3B
IC			
IC1	A	D	3D
IC2	B	C	6B
IC3	A	D	4B
IC4	A	D	3C
IC5	A	D	1C
COIL			
L2	A	D	6D
L3	A	D	3C
L4	A	D	6D

REF.NO.	LOCATION		
TRANSISTOR			
Q1	B	C	2D
Q2	B	C	3D
Q3	B	C	3D
Q4	B	C	4D
Q5	B	C	4D
Q6	B	C	2B
Q7	B	C	2A
Q8	B	C	2B
Q9	A	D	4A
RESISTOR			
R1	B	C	1D
R2	B	C	2D
R3	B	C	2D
R4	B	C	2D
R5	B	C	2D
R6	B	C	2D
R7	B	C	2D
R8	B	C	3D
R9	B	C	3D
R10	B	C	2D
R11	B	C	2D
R12	B	C	3D
R13	B	C	3D
R14	B	C	4D
R15	B	C	4D
R16	B	C	4C
R17	B	C	5C
R18	B	C	4D
R19	B	C	4D
R20	B	C	4D
R21	B	C	3D
R22	B	C	4D
R23	B	C	4D
R26	B	C	4C
R27	B	C	5C
R28	B	C	5B
R31	B	C	5B
R32	B	C	4B
R33	B	C	5B
R34	B	C	4B
R35	B	C	5B
R36	B	C	4A
R41	B	C	1C
R42	B	C	2C
R43	B	C	3C
R44	B	C	3C
R45	A	D	1D
R47	B	C	2C
R48	B	C	3B
R49	B	C	3C
R50	B	C	4B
R51	B	C	1B
R52	B	C	2B
R53	B	C	1B
R54	B	C	2B
R55	B	C	2B
R56	B	C	2B
R57	B	C	2A
R58	B	C	4A
R61	B	C	6A
R62	B	C	6A
R63	B	C	7D
R64	B	C	7D
OTHER			
CF2	A	D	3D
CF3	A	D	1C
CF4	A	D	1C
CF5	A	D	3D
JP1	A	D	2A
JP2	A	D	5A
LC1	A	D	5A
LC2	A	D	6A
X1	A	D	5D
X2	A	D	2C

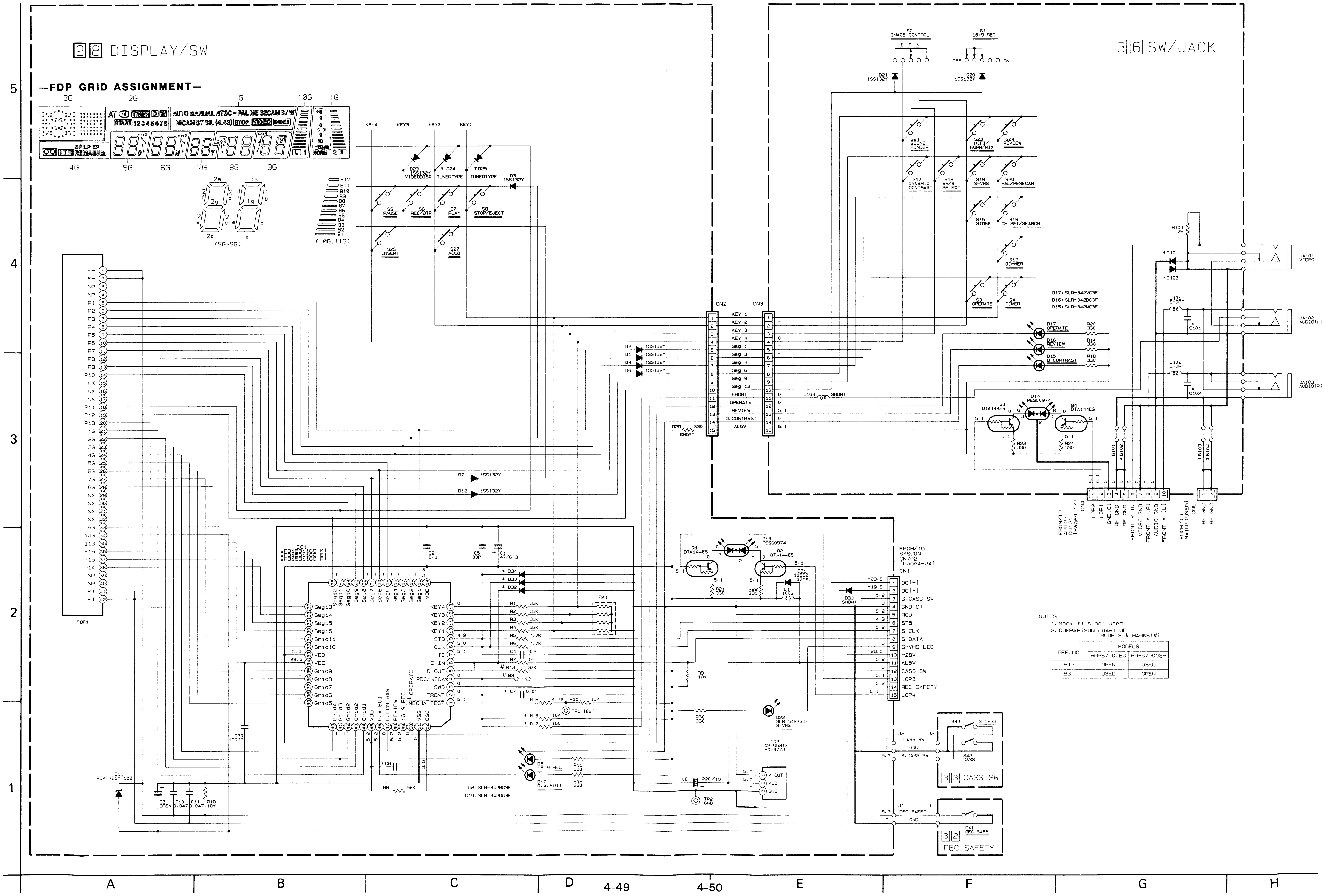

Cateqory : IC
Horizontal "A" zone
Vertical "6" zone

REF. NO.	LOCATION		
	IC		
IC101	B	C	6A

B : Foil side
(A : Component side)

C : Chip Component
(D : Discrete component)

4.23 DISPLAY/SW AND SW/JACK SCHEMATIC DIAGRAM


28 DISPLAY/SW
36 SW/JACK
33 CASS SW
32 REC SAFETY
—FDP GRID ASSIGNMENT—
3G
2G
1G
10G
11G
4G
5G
6G
7G
8G
9G
(5G~9G)
(10G,11G)
FDP1
IC1
μPD16311GC(K)
μPD16311GC(P)
KEY4
KEY3
KEY2
KEY1
S5 PAUSE
S6 REC/OTR
S7 PLAY
S8 STOP/EJECT
S25 INSERT
S27 ADUB
D23 1SS132Y VIDEODISP
D24 TUNERTYPE
D25 TUNERTYPE
D3 1SS132Y
D7 1SS132Y
D12 1SS132Y
CN2
CN3
KEY 1
KEY 2
KEY 3
KEY 4
Seg 1
Seg 3
Seg 4
Seg 6
Seg 9
Seg 12
FRONT
OPERATE
REVIEW
D. CONTRAST
AL5V
S2 IMAGE CONTROL
S1 16:9 REC
S21 SCENE FINDER
S23 HIFI/NORM/MIX
S24 REVIEW
S17 DYNAMIC CONTRAST
S18 AV/S SELECT
S19 S-VHS
S20 PAL/MESECAM
S15 STORE
S16 CH SET/SEARCH
S12 DIMMER
S3 OPERATE
S4 TIMER
D17: SLR-342VC3F
D16: SLR-342DC3F
D15: SLR-342MC3F
D17 OPERATE
D16 REVIEW
D15 D.CONTRAST
D14 PESC0974
Q3 DTA144ES
Q4 DTA144ES
JA101 VIDEO
JA102 AUDIO(L)
JA103 AUDIO(R)
FROM/TO AUDIO CN101 (Page4-17) CN4
LOP2
LOP1
GND(C)
RF GND
FRONT V IN
VIDEO GND
FRONT A.(R)
AUDIO GND
FRONT A.(L)
FROM/TO MAIN(TUNER) CN5
RF GND
FROM/TO SYSCON CN702 (Page4-24) CN1
DC(-)
DC(+)
S.CASS SW
GND(C)
RCU
STB
S.CLK
S.DATA
S-VHS LED
-28V
AL5V
CASS SW
LOP3
REC SAFETY
LOP4
D8: SLR-342MG3F
D10: SLR-342DU3F
D8 16:9 REC
D10 R.A.EDIT
D22 SLR-342MG3F S-VHS
IC2 GP1U581X HC-377J
TP1 TEST
TP2 GND
S43 S.CASS
S42 CASS
S41 REC SAFE
D11 RD4.7ES-T1B2

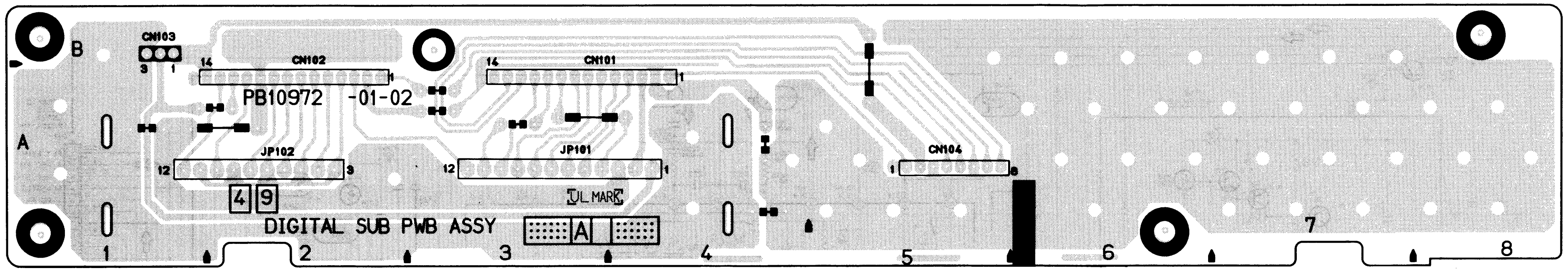
NOTES :

1. Mark(*)is not used.
2. COMPARISON CHART OF MODELS & MARKS(#)

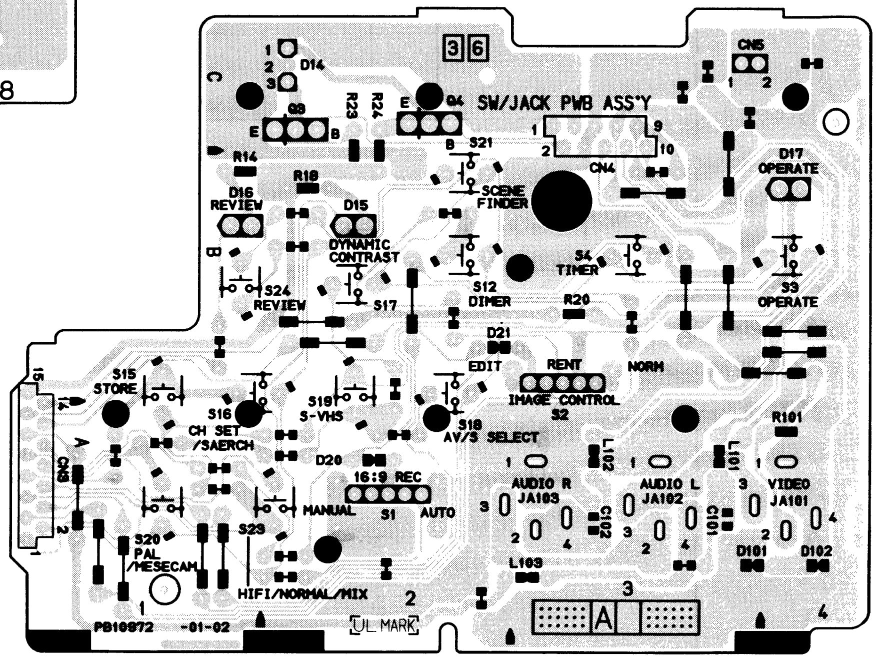
REF.NO	MODELS	
	HR-S7000EG	HR-S7000EH
R13	OPEN	USED
B3	USED	OPEN

4.24 DISPLAY/SW, SW/JACK, REC SAFETY SW, CASSETTE SW, DIGITAL SUB AND A/C HEAD CIRCUIT BOARDS

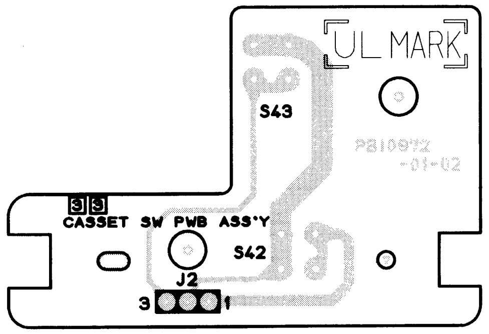
–DIGITAL SUB–


PB10972 -01-02
CN103
CN102
CN101
JP102
JP101
CN104
UL MARK
DIGITAL SUB PWB ASSY
49
A
1
2
3
4
5
6
7
8

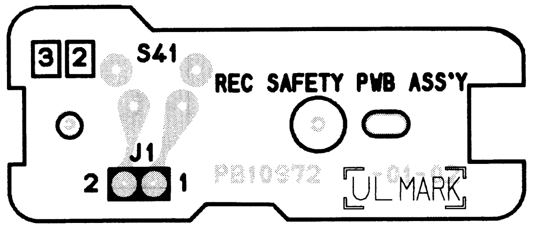
–SW/JACK–


36
SW/JACK PWB ASS'Y
CN5
CN4
D14
D15
D16 REVIEW
D17 OPERATE
S21
SCENE FINDER
DYNAMIC CONTRAST
S4 TIMER
S3 OPERATE
S24 REVIEW
S17
S12 DIMER
R20
D21
EDIT
RENT
NORM
IMAGE CONTROL
S2
S15 STORE
S16 CH SET /SAERCH
S19 S-VHS
S18 AV/S SELECT
D20
16:9 REC
MANUAL
S1
AUTO
S20 PAL /MESECAM
S23
HIFI/NORMAL/MIX
AUDIO R JA103
AUDIO L JA102
VIDEO JA101
L103
D101
D102
R101
PB10972 -01-02
UL MARK
A
1
2
3
4

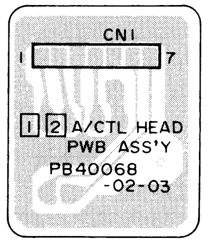
–CASS. SW–


UL MARK
S43
33
CASSET SW PWB ASS'Y
S42
J2
3
1

–REC SAFETY–


32
S41
REC SAFETY PWB ASS'Y
J1
2
1
PB10972
UL MARK

–A/C HEAD–


CN1
1
7
12
A/CTL HEAD PWB ASS'Y
PB40068 -02-03

COMPONENT PARTS LOCATION GUIDE <DISPLAY/SW>

REF.NO.	LOCATION		
CAPACITOR			
C1	A	D	3C
C2	A	D	2A
C3	A	D	1B
C4	A	D	1A
C5	A	D	1A
C6	A	D	9B
C7	A	D	2A
C8	A	D	2B
C10	A	D	8A
C11	A	D	1A
C20	A	D	1B
CONNECTOR			
CN1	A	D	1B
CN2	A	D	10A
DIODE			
D1	A	D	8A
D2	A	D	8A
D3	A	D	2A
D4	A	D	8A
D6	A	D	8A
D7	A	D	6A
D8	A	D	4A
D10	A	D	5A
D11	A	D	1B
D12	A	D	7A
D13	A	D	3C
D22	A	D	4A
D23	A	D	7A
D24	A	D	7A
D25	A	D	7A
D30	A	D	1B
D31	A	D	2C
D32	A	D	2A
D33	A	D	2A
D34	A	D	2A
IC			
IC1	B	C	2B
IC2	A	D	9A
COIL			
L1	A	D	3C
TRANSISTOR			
Q1	A	D	2C
Q2	A	D	2C
RESISTOR			
R1	A	D	1A
R2	A	D	1A
R3	A	D	1A
R4	A	D	2A
R5	A	D	1A
R6	A	D	1A
R7	A	D	1B
R8	A	D	2B
R9	A	D	1B
R10	A	D	8A
R11	A	D	4A
R12	A	D	5A
R13	A	D	1B
R15	A	D	1B
R16	A	D	2B
R17	A	D	2B
R19	A	D	2B
R21	A	D	2B
R22	A	D	2B
R29	A	D	9B
R30	A	D	4A
RA1	A	D	7A
SWITCH			
S5	A	D	3B
S6	A	D	3B
S7	A	D	1A
S8	A	D	2A
S25	A	D	4A
S27	A	D	4A
S41	A	D	10A
TEST POINT			
TP1	A	D	2A
TP2	A	D	2C
OTHER			
FDP	A	D	7A
J1	A	D	10A
J1	A	D	10B
J2	A	D	3B
J3	A	D	1A
J3	A	D	6A

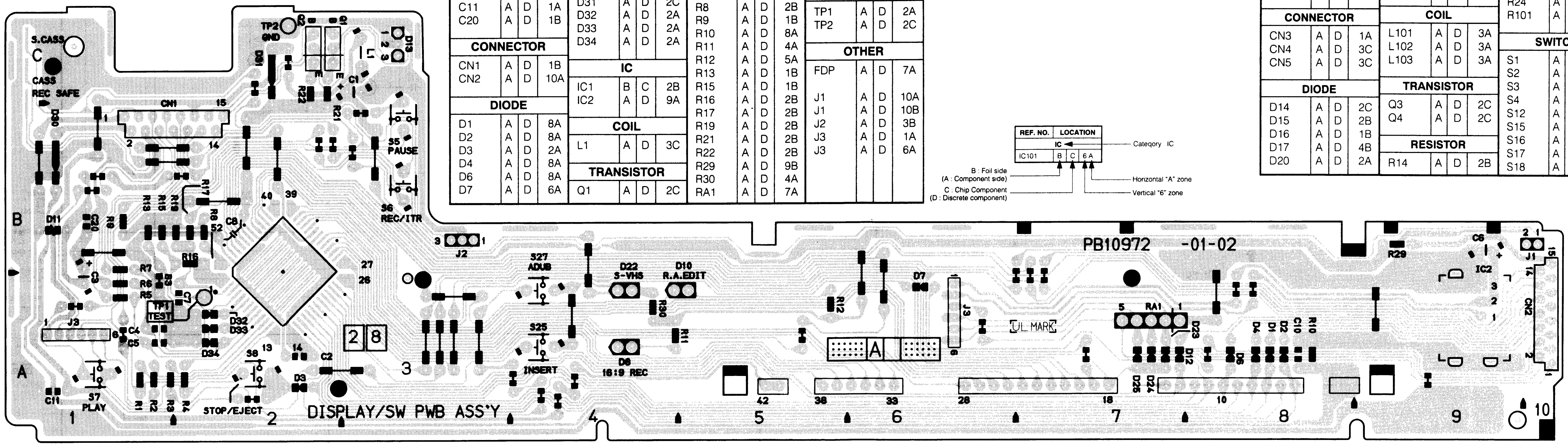
REF. NO.	LOCATION		
IC			
IC101	B	C	6 A

Categqory IC
B : Foil side
(A : Component side)
C : Chip Component
(D : Discrete component)
Horizontal "A" zone
Vertical "6" zone

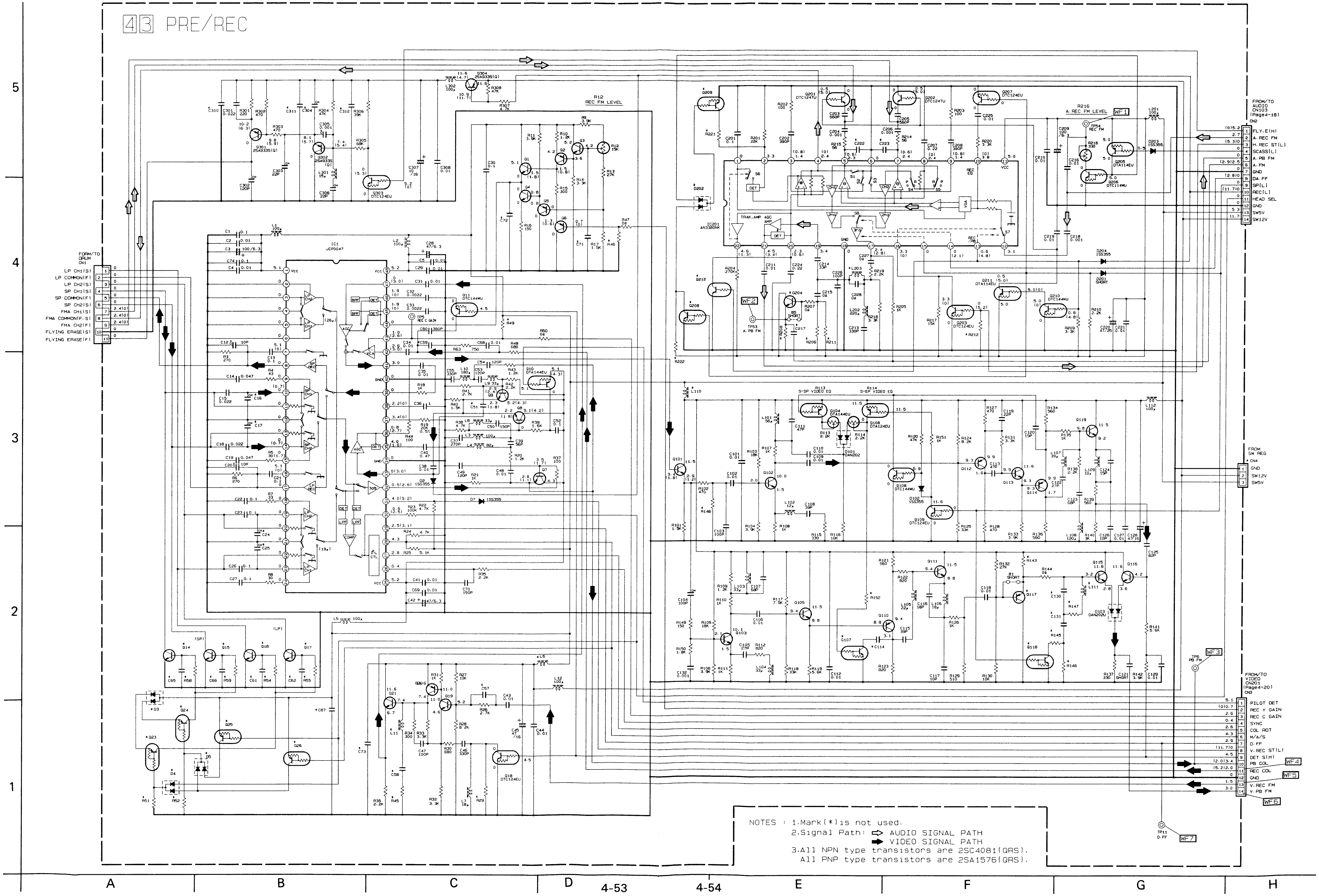
COMPONENT PARTS LOCATION GUIDE <SW/JACK>

REF.NO.	LOCATION		
CAPACITOR			
C101	A	D	3A
C102	A	D	3A
CONNECTOR			
CN3	A	D	1A
CN4	A	D	3C
CN5	A	D	3C
DIODE			
D14	A	D	2C
D15	A	D	2B
D16	A	D	1B
D17	A	D	4B
D20	A	D	2A
D21	A	D	2B
D101	A	D	4A
D102	A	D	4A
COIL			
L101	A	D	3A
L102	A	D	3A
L103	A	D	3A
TRANSISTOR			
Q3	A	D	2C
Q4	A	D	2C
RESISTOR			
R14	A	D	2B
R18	A	D	2B
R20	A	D	3B
R23	A	D	2B
R24	A	D	2B
R101	A	D	4A
SWITCH			
S1	A	D	2A
S2	A	D	3B
S3	A	D	4B
S4	A	D	3B
S12	A	D	2B
S15	A	D	1B
S16	A	D	1B
S17	A	D	2B
S18	A	D	2B
S19	A	D	2B
S20	A	D	1A
S21	A	D	2B
S23	A	D	2A
S24	A	D	1B
OTHER			
JA101	A	D	4A
JA102	A	D	3A
JA103	A	D	3A

–DISPLAY/SW–


S.CASS
CASS REC SAFE
TP2 GND
D13
L1
C1
R22
R21
CN1
S5 PAUSE
S6 REC/ITR
IC1
J2
S27 ADUB
D22 S-VHS
D10 R.A.EDIT
D7
J3
RA1
D23
PB10972 -01-02
R29
C6
J1
IC2
CN2
TP1 TEST
D32 D33
D34
J3
28
S8
C2
D3
S25 INSERT
D8 16:9 REC
S7 PLAY
STOP/EJECT
DISPLAY/SW PWB ASS'Y
UL MARK
A
B
C
1
2
3
4
5
6
7
8
9
10

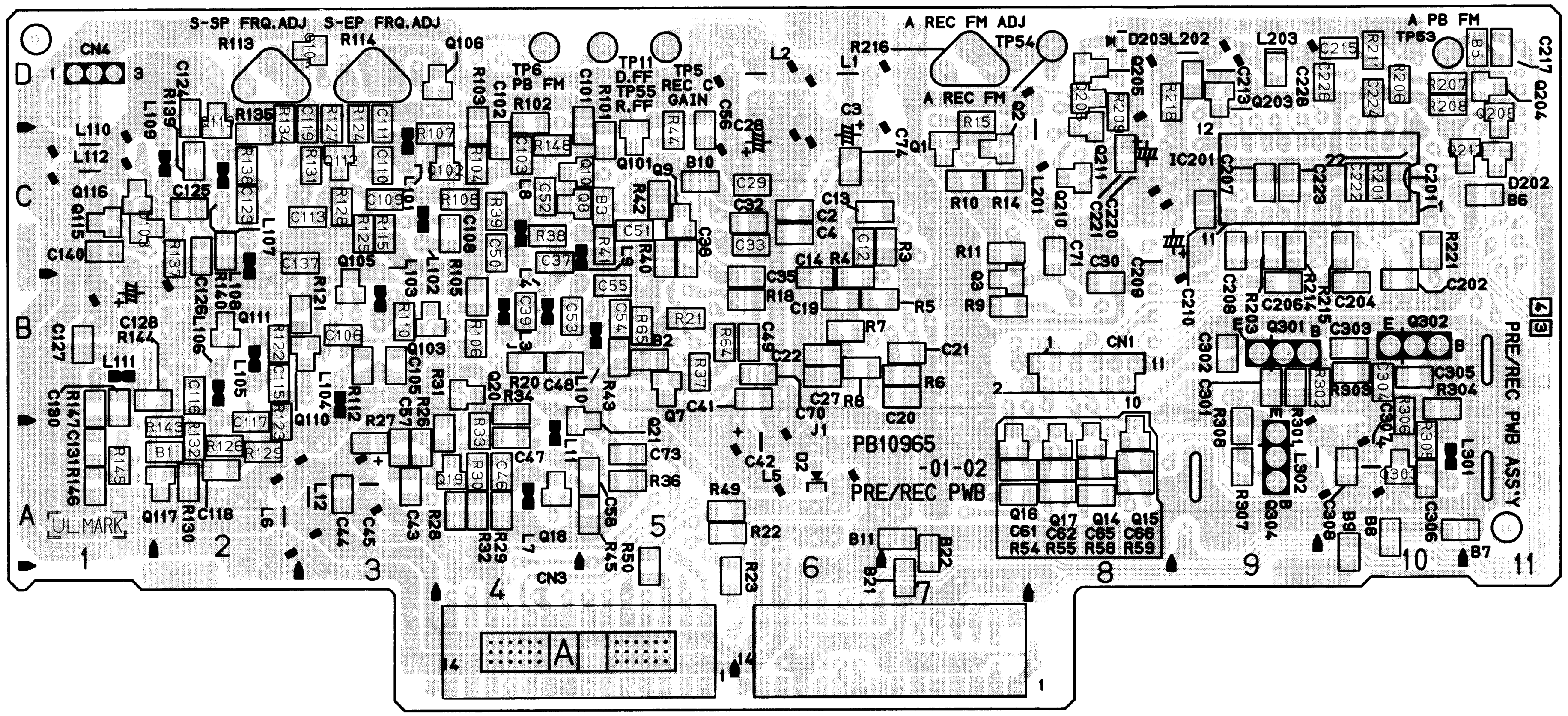
4.25 PRE/REC SCHEMATIC DIAGRAM


43 PRE/REC
FORM/TO DRUM CN1
LP CH1(S)
LP COMMON(F)
LP CH2(S)
SP CH1(S)
SP COMMON(F)
SP CH2(S)
FMA CH1(S)
FMA COMMON(F.S)
FMA CH2(F)
FLYING ERASE(S)
FLYING ERASE(F)
IC1 JCP0047
IC201 AN3380NK
R12 REC FM LEVEL
R216 A.REC FM LEVEL
TP54 REC FM
TP53 A.PB FM
TP5 REC C GAIN
R113 S-SP VIDEO EQ
R114 S-EP VIDEO EQ
TRAK.AMP
AGC AMP
DET
REC EQ
VCA
COMP
CTL
GND
VCC
WF1
WF2
WF3
TP6 PB FM
WF4
WF5
WF6
WF7
TP11 D.FF
FROM/TO AUDIO CN103 (Page4-18)
CN2
FLY.E(H)
A.REC FM
H.REC ST(L)
SCASS(L)
A.PB FM
A.FM
GND
DA.FF
SP(L)
REC(L)
HEAD SEL
GND
SW5V
SW12V
FROM SW REG
* CN4
GND
SW12V
SW5V
FROM/TO VIDEO CN201 (Page4-20)
CN3
PILOT DET
REC Y GAIN
REC C GAIN
SYNC
COL ROT
M/A/S
D.FF
V.REC ST(L)
DET S(H)
PB COL
REC COL
GND
V.REC FM
V.PB FM
1
2
3
4
5
A
B
C
D
E
F
G
H

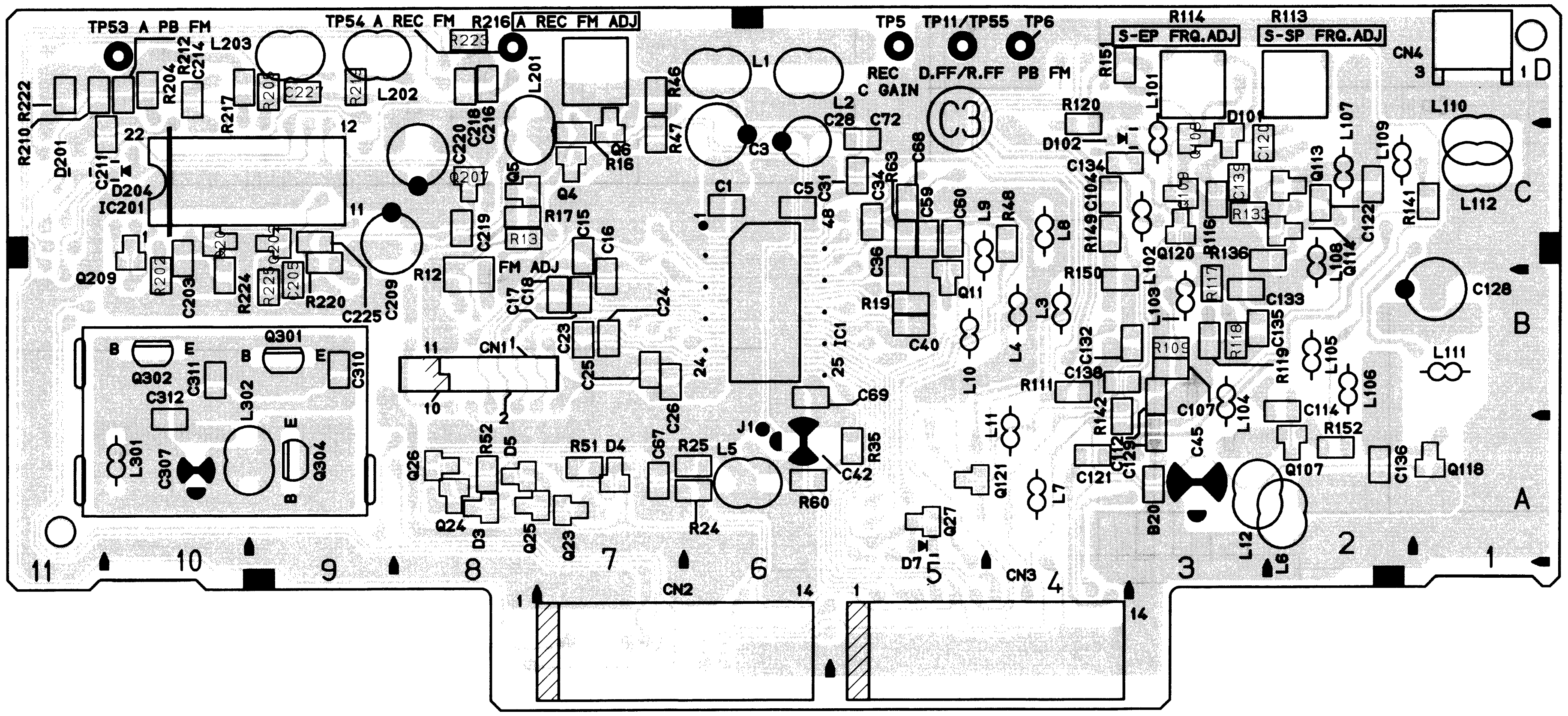
NOTES : 1.Mark(*)is not used.
2.Signal Path: ⇨ AUDIO SIGNAL PATH
➡ VIDEO SIGNAL PATH
3.All NPN type transistors are 2SC4081(QRS).
All PNP type transistors are 2SA1576(QRS).

4.26 PRE/REC CIRCUIT BOARD

– FOIL SIDE (B) –

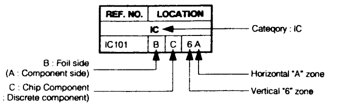

S-SP FRQ.ADJ
S-EP FRQ.ADJ
R113
R114
A REC FM ADJ
R216
TP54
A REC FM
A PB FM
TP53
TP6
PB FM
TP11
D.FF
TP55
R.FF
TP5
REC C
GAIN
CN4
IC201
CN1
CN3
PB10965
-01-02
PRE/REC PWB
PRE/REC PWB ASS'Y
UL MARK
A
B
C
D
1
2
3
4
5
6
8
9
10
11

– COMPONENT SIDE (A) –


TP53 A PB FM
TP54 A REC FM
R216
A REC FM ADJ
TP5
TP11/TP55
TP6
REC
C GAIN
D.FF/R.FF
PB FM
R114
R113
S-EP FRQ.ADJ
S-SP FRQ.ADJ
CN4
IC201
IC1
FM ADJ
CN1
CN2
CN3
C3
A
B
C
D
1
2
3
4
5
6
7
8
9
10
11

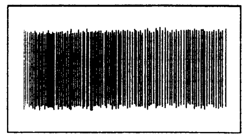
COMPONENT PARTS LOCATION GUIDE

REF.NO.	LOCATION		
CAPACITOR			
C1	A	C	6D
C2	B	C	6D
C3	A	D	6D
C4	B	C	6D
C5	A	C	6D
C12	B	C	6D
C13	B	C	6D
C14	B	C	6C
C15	A	C	7D
C16	A	C	7C
C17	A	C	7C
C18	A	C	7C
C19	B	C	6C
C20	B	C	7C
C21	B	C	7C
C22	B	C	6C
C23	A	C	7C
C24	A	C	7C
C25	A	C	7C
C26	A	C	7C
C27	B	C	6C
C28	A	D	6D
C29	B	C	6D
C30	B	C	8C
C31	A	C	5D
C32	B	C	6D
C33	B	C	6D
C34	A	C	5D
C35	B	C	6C
C36	A	C	5C
C37	B	C	4D
C38	B	C	5D
C39	B	C	4C
C40	A	C	5C
C41	B	C	6C
C42	A	D	6B
C43	B	C	3B
C44	B	C	3B
C45	A	D	3B
C46	B	C	4B
C47	B	C	4B
C48	B	C	4C
C49	B	C	6C
C50	B	C	4D
C51	B	C	5D
C52	B	C	4D
C53	B	C	4C
C54	B	C	5C
C55	B	C	5C
C56	B	C	5D
C57	B	C	3B
C58	B	C	5B
C59	A	C	5D
C60	A	C	5D
C61	B	C	7B
C62	B	C	8B
C65	B	C	8B
C66	B	C	8B
C67	A	C	7B
C68	A	C	5D
C69	A	C	6C
C70	B	C	6C
C71	B	C	8D
C72	A	C	5D
C73	B	C	5B
C74	B	C	6D
C101	B	C	4E
C102	B	C	4D
C103	B	C	4D
C104	A	C	4D
C105	B	C	3C
C106	B	C	3C
C107	A	C	3C
C108	B	C	4D
C109	B	C	3D
C110	B	C	3D
C111	B	C	3E
C112	A	C	3C
C113	B	C	3D
C114	A	C	2C
C115	B	C	2C
C116	B	C	2C
C117	B	C	2B
C118	B	C	2B
C119	B	C	3E
C120	A	C	3D
C121	A	C	4B
C122	A	C	2D
C123	B	C	2D
C124	B	C	2E
C125	B	C	2D
C126	B	C	2D
C127	B	C	1C
C128	A	D	1C
C129	A	C	3B
C130	B	C	1C
C131	B	C	1B
C132	A	C	3C
C133	A	C	3C
C134	A	C	3D
C135	A	C	3C
C136	A	C	2B
C137	B	C	3D
C138	A	C	4C
C139	A	C	3D
C140	B	C	1D
C141	A	C	2D
C201	B	C	10D
C202	B	C	10C
C203	A	C	10D
C204	B	C	10C
C205	A	C	9C
C206	B	C	9C
C207	B	C	9D
C208	B	C	9D
C209	A	D	9D
C210	B	C	9D
C211	A	C	10D
C213	B	C	9E
C214	A	C	10E
C215	B	C	10E
C216	A	C	8E
C217	B	C	11E
C218	A	C	8E
C219	A	C	8D
C220	A	D	8D
C221	B	C	8D
C222	B	C	10D
C223	B	C	9D
C224	B	C	10E
C225	A	C	9D
C226	B	C	10E
C227	A	C	9E
C228	B	C	9E
C301	B	C	9C
C302	B	C	9C
C303	B	C	10C
C304	B	C	10C
C305	B	C	10C
C306	B	C	10B
C307	A	D	10B
C308	B	C	10B
C310	A	C	9C
C311	A	C	10C
C312	A	C	10C
CONNCTOR			
CN1	A	D	7C
CN2	A	D	7A
CN3	A	D	5A
CN4	A	D	1E
DIODE			
D2	B	C	6B
D3	A	C	8B
D4	A	C	7B
D5	A	C	8B
D7	A	C	5B
D101	A	C	3D
D102	A	C	4D
D103	B	C	1D
D201	A	C	11D
D202	B	C	11D
D203	B	C	8E
D204	A	C	10D
IC			
IC1	A	C	6C
IC201	A	D	10D
COIL			
L1	A	D	6E
L2	A	D	6E
L3	A	D	4C
L4	A	D	4C
L5	A	D	6B
L6	A	D	2B
L7	A	D	4B
L8	A	D	4D
L9	A	D	4C
L10	A	D	5C
L11	A	D	4B
L12	A	D	3B
L101	A	D	3D
L102	A	D	3D
L103	A	D	3C
L104	A	D	3B
L105	A	D	2C
L106	A	D	2C
L107	A	D	2D
L108	A	D	2C
L109	A	D	2D
L110	A	D	1D
L111	A	D	1C
L112	A	D	1D
L201	A	D	8D
L202	A	D	9E
L203	A	D	9E
L301	A	D	10B
L302	A	D	10B
TRANSISTOR			
Q1	B	C	7D
Q2	B	C	7D
Q3	B	C	7C
Q4	A	C	7D
Q5	A	C	8D
Q6	A	C	7E
Q7	B	C	5C
Q8	B	C	4D
Q9	B	C	5D
Q10	B	C	4D
Q11	A	C	5C
Q14	B	C	8B
Q15	B	C	8B
Q16	B	C	7B
Q17	B	C	8B
Q18	B	C	4B
Q19	B	C	4B
Q20	B	C	4C
Q21	B	C	4B
Q23	A	C	7B
Q24	A	C	8B
Q25	A	C	8B
Q26	A	C	8B
Q27	A	C	5B
Q101	B	C	5D
Q102	B	C	4D
Q103	B	C	3C
Q104	B	C	3E
Q105	B	C	3C
Q106	B	C	3E
Q107	A	C	2B
Q108	A	C	3D
Q109	A	C	3D
Q110	B	C	3C
Q111	B	C	2C
Q112	B	C	3D
Q113	A	C	2D
Q114	A	C	2D
Q115	B	C	1D
Q116	B	C	1D
Q117	B	C	2B
Q118	A	C	1B
Q119	B	C	2E
Q120	A	C	3D
Q121	A	C	5B
Q201	A	C	10D
Q202	A	C	9D
Q203	B	C	9E
Q204	B	C	11E
Q205	B	C	8E
Q206	B	C	8E
Q207	A	C	8D
Q208	B	C	11E
Q209	A	C	10D
Q210	B	C	8D
Q211	B	C	8D
Q212	B	C	11D
Q301	A	D	9C
Q302	A	D	10C
Q303	B	C	10B
Q304	A	D	9B
RESISTOR			
R3	B	C	7D
R4	B	C	6C
R5	B	C	7C
R6	B	C	7C
R7	B	C	6C
R8	B	C	6C
R9	B	C	7C
R10	B	C	7D
R11	B	C	7D
R12	A	C	8C
R13	A	C	8D
R14	B	C	7D
R15	B	C	7E
R16	A	C	7D
R17	A	C	8D
R18	B	C	6C
R19	A	C	5C
R20	B	C	4C
R21	B	C	5C
R22	B	C	5B
R23	B	C	5A
R24	A	C	6B
R25	A	C	6B
R26	B	C	3B
R27	B	C	3B
R28	B	C	4B
R29	B	C	4B
R30	B	C	4B
R31	B	C	4B
R32	B	C	4B
R33	B	C	4B
R34	B	C	4C
R35	A	C	5B
R36	B	C	5B
R37	B	C	5C
R38	B	C	4D
R39	B	C	4D
R40	B	C	5D
R41	B	C	5D
R42	B	C	5D
R43	B	C	5C
R44	B	C	5D
R45	B	C	5B
R46	A	C	7E
R47	A	C	7D
R48	A	C	4D
R49	B	C	5B
R50	B	C	5A
R51	A	C	7B
R52	A	C	8B
R54	B	C	7B
R55	B	C	8B
R58	B	C	8B
R59	B	C	8B
R60	A	C	6B
R63	A	C	5D
R64	B	C	5C
R65	B	C	5C
R101	B	C	5D
R102	B	C	4E
R103	B	C	4E
R104	B	C	4D
R105	B	C	4C
R106	B	C	4C
R107	B	C	3D
R108	B	C	4D
R109	A	C	3C
R110	B	C	3C
R111	A	C	4C
R112	B	C	3C
R113	A	D	2E
R114	A	D	3E
R115	B	C	3D
R116	A	C	3D
R117	A	C	3C
R118	A	C	3C
R119	A	C	3C
R120	A	C	4E
R121	B	C	3C
R122	B	C	2C
R123	B	C	2B
R124	B	C	3E
R125	B	C	3D
R126	B	C	2B
R127	B	C	3E
R128	B	C	3D
R129	B	C	2B
R130	B	C	2B
R131	B	C	3D
R132	B	C	2B
R133	A	C	3D
R134	B	C	2E
R135	B	C	2D
R136	A	C	3D
R137	B	C	2D
R138	B	C	2D
R139	B	C	2D
R140	B	C	2D
R141	A	C	1D
R142	A	C	4C
R143	B	C	2B
R144	B	C	2C
R145	B	C	1B
R146	B	C	1B
R147	B	C	1C
R148	B	C	4D
R149	A	C	4D
R150	A	C	4C
R151	A	C	3E
R152	A	C	2B
R201	B	C	10D
R202	A	C	10C
R203	B	C	9D
R204	A	C	10E
R205	A	C	9E
R206	B	C	10E
R207	B	C	10E
R208	B	C	10E
R209	B	C	8E
R210	A	C	11E
R211	B	C	10E
R212	A	C	10E
R214	B	C	9D
R215	B	C	10D
R216	A	D	7E
R217	A	C	10E
R218	B	C	9E
R219	A	C	9E
R220	A	C	9D
R221	B	C	10D
R222	A	C	11E
R223	A	C	8E
R224	A	C	10C
R225	A	C	9C
R301	B	C	9C
R302	B	C	10C
R303	B	C	10C
R304	B	C	10C
R305	B	C	10B
R306	B	C	10C
R307	B	C	9B
R308	B	C	9B
TEST POINT			
TP5	A	D	5E
TP6	A	D	4E
TP11	A	D	5E
TP53	A	D	10E
TP54	A	D	8E


REF. NO.
LOCATION
IC
IC101
B
C
6 A
Category : IC
B : Foil side
(A : Component side)
C : Chip Component
(D : Discrete component)
Horizontal "A" zone
Vertical "6" zone

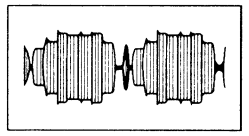
WAVEFORMS

WF1 TP54 A.REC FM



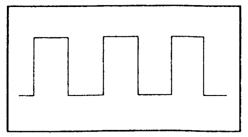
REC0.06Vp-p
5mV/1msec/DIV

WF4 CN3-11 REC COLOR



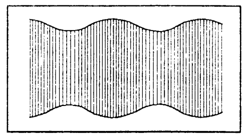
REC0.54Vp-p
20mV/20µsec/DIV

WF7 TP11 D.FF



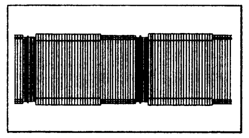
REC/PB5.6Vp-p
0 2V/10msec/DIV

WF2 TP53 A.PB FM



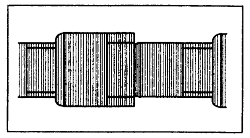
PB0.04Vp-p
5mV/1msec/DIV

WF5 CN3-13 V.REC FM



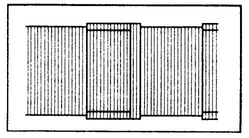
REC0.26Vp-p
10mV/5msec/DIV

WF3 TP6 PB FM



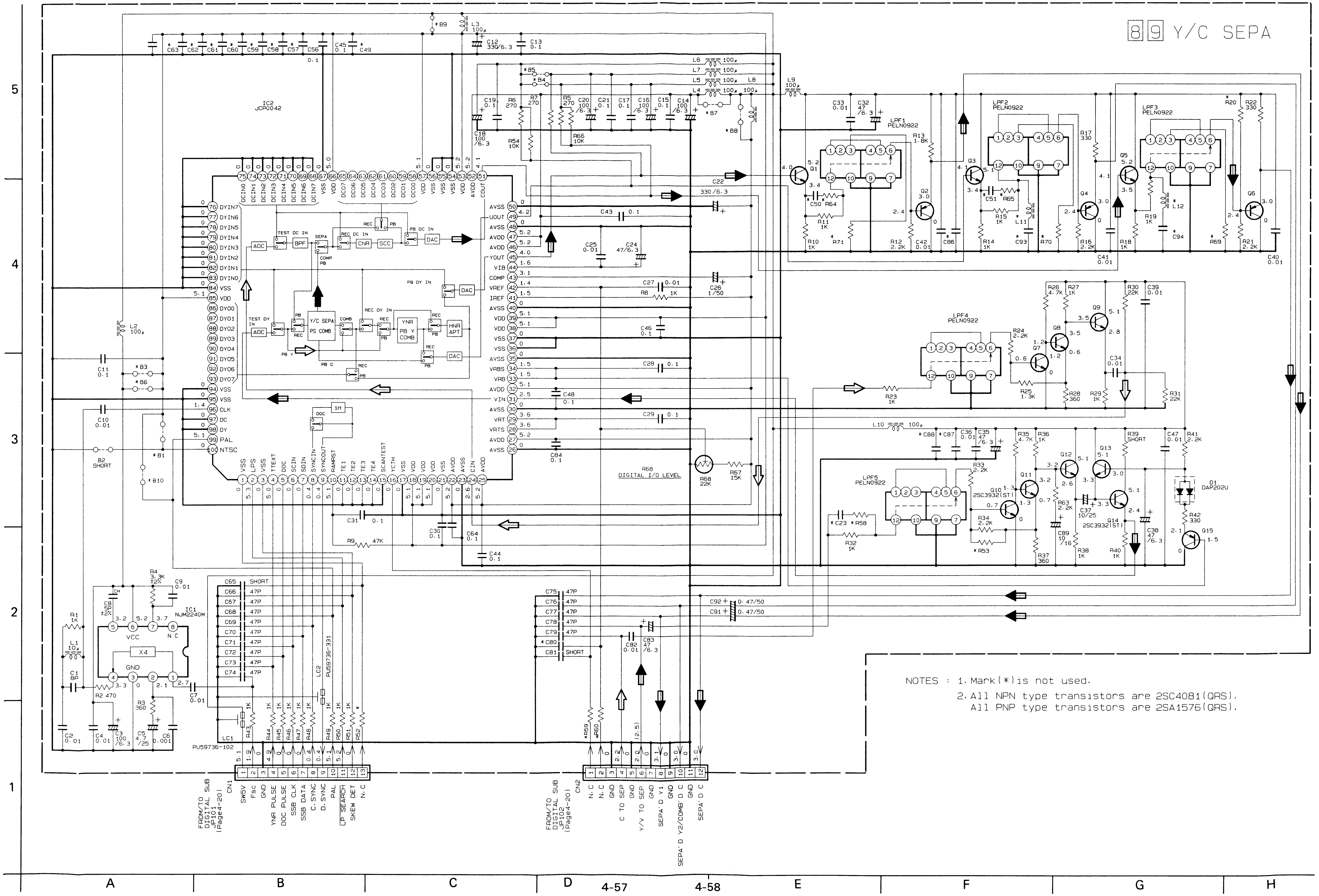
PB0.3Vp-p
10mV/5msec/DIV

WF6 CN3-14 V.PB FM



PB0 4Vp-p
20mV/5msec/DIV

4.27 Y/C SEPA SCHEMATIC DIAGRAM

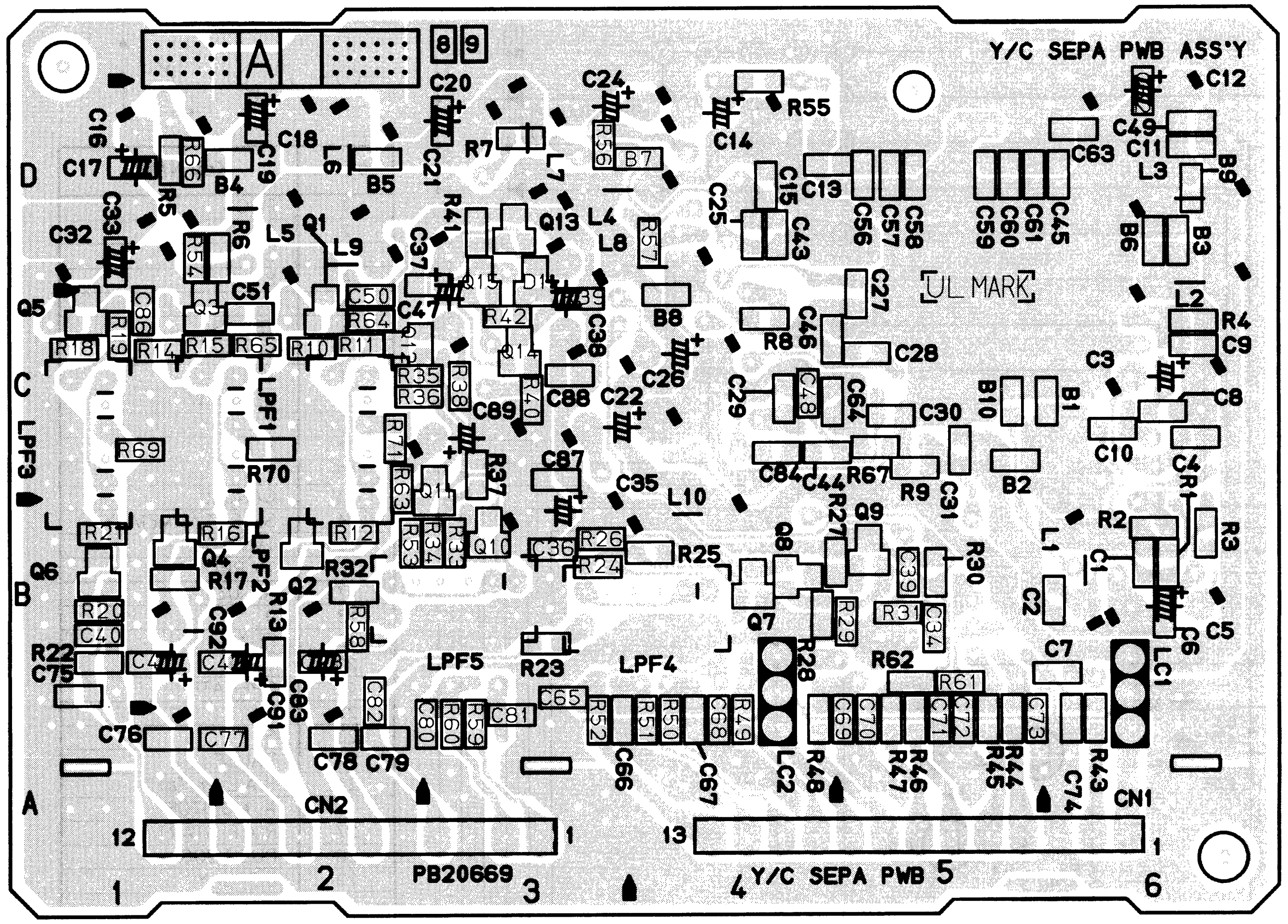

8 9 Y/C SEPA
IC2 JCP0042
IC1 NJM2240M
LPF1 PELN0922
LPF2 PELN0922
LPF3 PELN0922
LPF4 PELN0922
LPF5 PELN0922
LC1 PU59736-102
LC2 PU59736-331
D1 DAP202U
Q10 2SC3932(ST)
Q14 2SC3932(ST)
R68 DIGITAL I/O LEVEL
Y/C SEPA PS COMB
YNR PB Y COMB
HNR APT
ADC
BPF
CNR
SCC
DAC
1H
TEST DC IN
SEPA
COMP PB
REC DC IN
PB DC IN
PB DY IN
TEST DY IN
REC DY IN
PB Y
PB C
DOC
B2 SHORT
FROM/TO DIGITAL SUB JP101 (Page4-20)
CN1
SW5V
Fsc
GND
YNR PULSE
DOC PULSE
SSB CLK
SSB DATA
C.SYNC
D.SYNC
PAL
LP SEARCH
SKEW DET
N.C
FROM/TO DIGITAL SUB JP102 (Page4-20)
CN2
N.C
N.C
GND
C TO SEP
GND
Y/V TO SEP
GND
SEPA'D Y1
GND
SEPA'D Y2/COMB D C
GND
SEPA'D C
A
B
C
D
E
F
G
H
1
2
3
4
5

NOTES : 1. Mark(*)is not used.

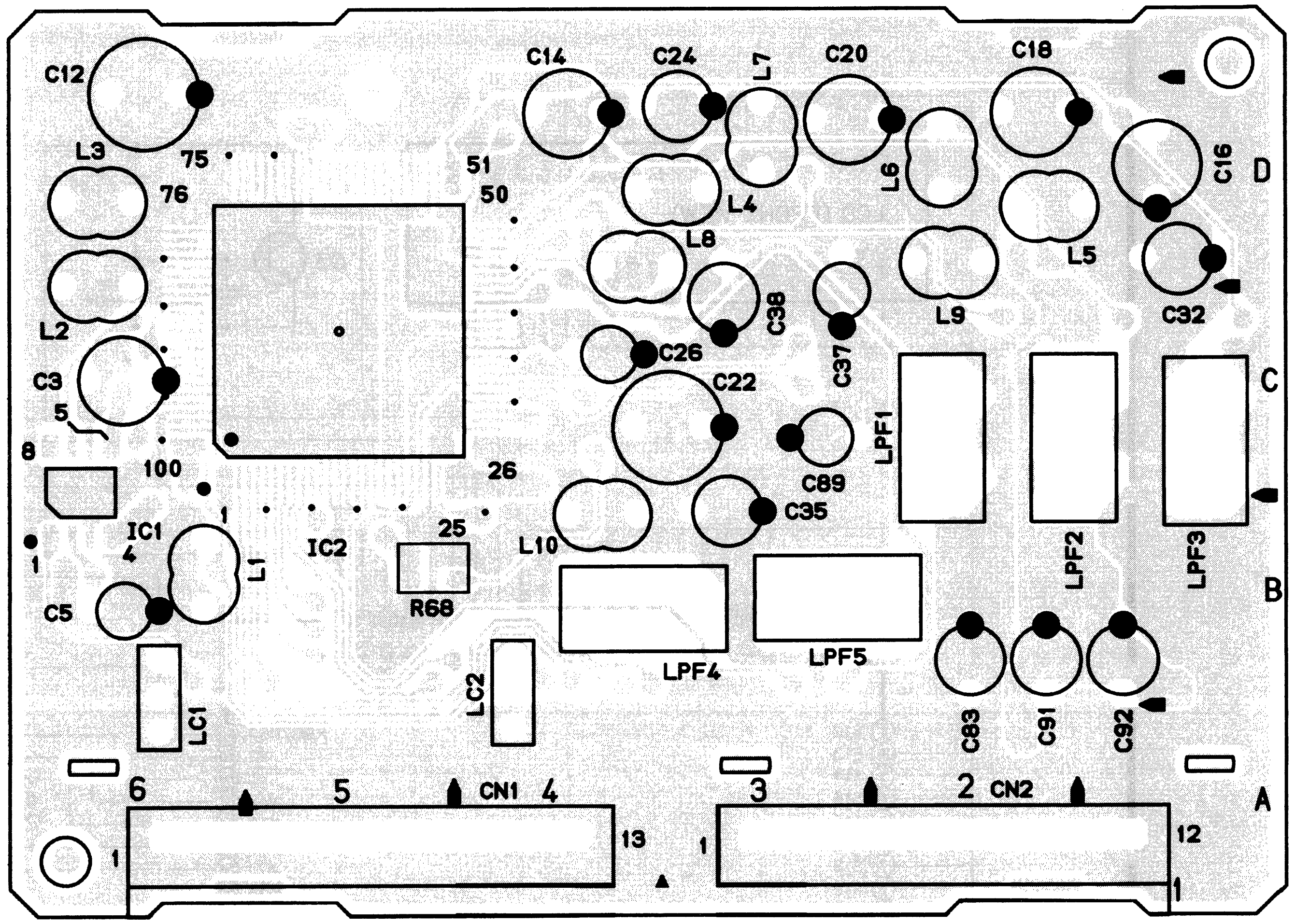
2. All NPN type transistors are 2SC4081(QRS).
All PNP type transistors are 2SA1576(QRS).

4.28 Y/C SEPA CIRCUIT BOARD

— FOIL SIDE(B) —

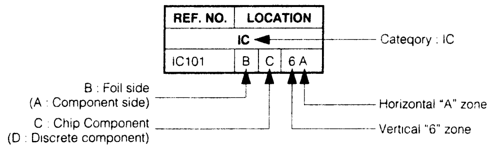

Y/C SEPA PWB ASS'Y
UL MARK
CN1
CN2
PB20669
Y/C SEPA PWB
A
B
C
D
1
2
3
4
5
6
12
13
LPF1
LPF2
LPF3
LPF4
LPF5
LC1
LC2

— COMPONENT SIDE(A) —


IC1
IC2
CN1
CN2
LPF1
LPF2
LPF3
LPF4
LPF5
LC1
LC2
R68
A
B
C
D
1
2
3
4
5
6
13

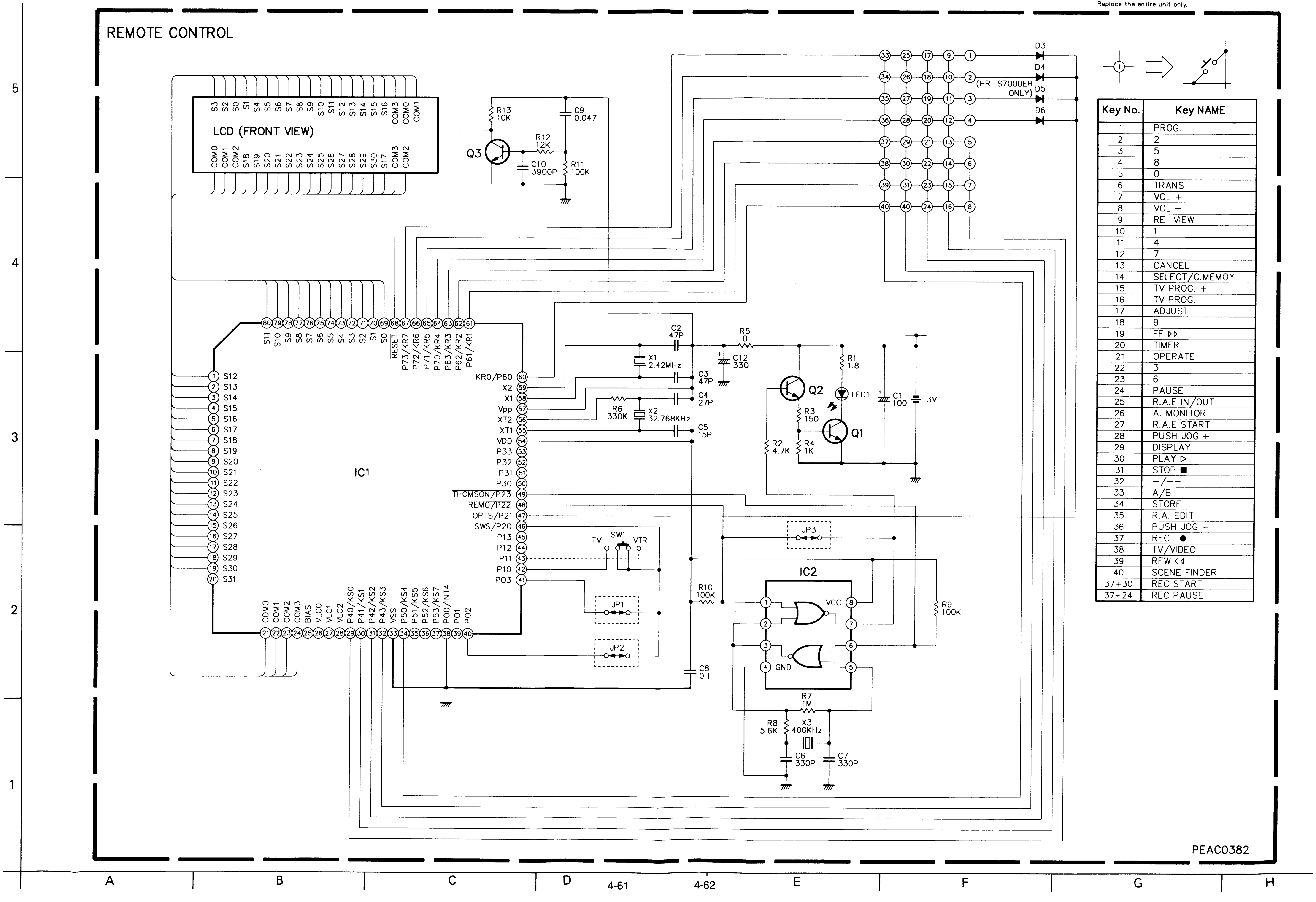
COMPONENT PARTS LOCATION GUIDE

REF.NO.	LOCATION		
CAPACITOR			
C1	B	C	6B
C2	B	C	6B
C3	A	D	6C
C4	B	C	6C
C5	A	D	6B
C6	B	C	6B
C7	B	C	6B
C8	B	C	6C
C9	B	C	6C
C10	B	C	6C
C11	B	C	6D
C12	A	D	6D
C13	B	C	4D
C14	A	D	4D
C15	B	C	4D
C16	A	D	1D
C17	B	C	1D
C18	A	D	2D
C19	B	C	2D
C20	A	D	3D
C21	B	C	3D
C22	A	D	4C
C23	B	C	2B
C24	A	D	4D
C25	B	C	4D
C26	A	D	4C
C27	B	C	5C
C28	B	C	5C
C29	B	C	4C
C30	B	C	5C
C31	B	C	5C
C32	A	D	1D
C33	B	C	1D
C34	B	C	5B
C35	A	D	3B
C36	B	C	3B
C37	A	D	3D
C38	A	D	3D
C39	B	C	5B
C40	B	C	1B
C41	B	C	1B
C42	B	C	2B
C43	B	C	4D
C44	B	C	4C
C45	B	C	6D
C46	B	C	4C
C47	B	C	3D
C48	B	C	4C
C49	B	C	6D
C50	B	C	2C
C51	B	C	2C
C56	B	C	5D
C57	B	C	5D
C58	B	C	5D
C59	B	C	5D
C60	B	C	5D
C61	B	C	5D
C62	B	C	6D
C63	B	C	6D
C64	B	C	4C
C65	B	C	3B
C66	B	C	3A
C67	B	C	4A
C68	B	C	4A
C69	B	C	5A
C70	B	C	5A
C71	B	C	5A
C72	B	C	5A
C73	B	C	5A
C74	B	C	6A
C75	B	C	1B
C76	B	C	1A
C77	B	C	2A
C78	B	C	2A
C79	B	C	2A
C80	B	C	3A
C81	B	C	3A
C82	B	C	2B
C83	A	D	2B
C84	B	C	4C
C86	B	C	1C
C87	B	C	3C
C88	B	C	3C
C89	A	D	3C
C91	A	D	2B
C92	A	D	1B
CONNECTOR			
CN1	A	D	4A
CN2	A	D	1A
DIODE			
D1	B	C	3D
IC			
IC1	A	C	6C
IC2	A	C	5C
COIL			
L1	A	D	6B
L2	A	D	6D
L3	A	D	6D
L4	A	D	3D
L5	A	D	1D
L6	A	D	2D
L7	A	D	3D
L8	A	D	3D
L9	A	D	2D
L10	A	D	4B
TRANSISTOR			
Q1	B	C	2C
Q2	B	C	2B
Q3	B	C	1C
Q4	B	C	1B
Q5	B	C	1C
Q6	B	C	1B
Q7	B	C	4B
Q8	B	C	4B
Q9	B	C	5B
Q10	B	C	3B
Q11	B	C	3C
Q12	B	C	2C
Q13	B	C	3D
Q14	B	C	3C
Q15	B	C	3D
RESISTOR			
R1	B	C	6B
R2	B	C	6B
R3	B	C	6B
R4	B	C	6C
R5	B	C	1D
R6	B	C	2D
R7	B	C	3D
R8	B	C	4C
R9	B	C	5C
R10	B	C	2C
R11	B	C	2C
R12	B	C	2B
R13	B	C	2B
R14	B	C	1C
R15	B	C	1C
R16	B	C	2B
R17	B	C	1B
R18	B	C	1C
R19	B	C	1C
R20	B	C	1B
R21	B	C	1B
R22	B	C	1B
R23	B	C	3B
R24	B	C	3B
R25	B	C	4B
R26	B	C	3B
R27	B	C	5B
R28	B	C	4B
R29	B	C	5B
R30	B	C	5B
R31	B	C	5B
R32	B	C	2B
R33	B	C	3B
R34	B	C	3B
R35	B	C	2C
R36	B	C	2C
R37	B	C	3C
R38	B	C	3C
R39	B	C	3C
R40	B	C	3C
R41	B	C	3D
R42	B	C	3C
R43	B	C	6A
R44	B	C	5A
R45	B	C	5A
R46	B	C	5A
R47	B	C	5A
R48	B	C	4A
R49	B	C	4A
R50	B	C	4A
R51	B	C	4A
R52	B	C	3A
R53	B	C	2B
R54	B	C	1D
R55	B	C	4D
R56	B	C	3D
R57	B	C	4D
R58	B	C	2B
R59	B	C	3A
R60	B	C	3A
R61	B	C	5B
R62	B	C	5B
R63	B	C	2C
R64	B	C	2C
R65	B	C	2C
R66	B	C	1D
R67	B	C	5C
R68	A	C	5B
R69	B	C	1C
R70	B	C	2C
R71	B	C	2C
OTHERS			
LC1	A	D	6A
LC2	A	D	4A
LPF1	A	D	2C
LPF2	A	D	2C
LPF3	A	D	1C
LPF4	A	D	3B
LPF5	A	D	2B


REF. NO.
LOCATION
IC
IC101
B
C
6 A
Categqory : IC
B : Foil side
(A : Component side)
C : Chip Component
(D : Discrete component)
Horizontal "A" zone
Vertical "6" zone

4.29 REMOTE CONTROL SCHEMATIC DIAGRAM

NOTES:
1. All parts shown in this schematic are critical for safety.
2. This schematic is only for reference.
   Avoid replacing individual parts.
   Replace the entire unit only.



REMOTE CONTROL
LCD (FRONT VIEW)
S3 S2 S0 S1 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 COM3 COM0 COM1
COM0 COM1 COM2 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S17 COM3 COM2
Q3
R13 10K
C9 0.047
R12 12K
C10 3900P
R11 100K
IC1
S11 S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 S0 RESET P73/KR7 P72/KR6 P71/KR5 P70/KR4 P63/KR3 P62/KR2 P61/KR1
S12 S13 S14 S15 S16 S17 S18 S19 S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31
KR0/P60 X2 X1 Vpp XT2 XT1 VDD P33 P32 P31 P30 THOMSON/P23 REMO/P22 OPTS/P21 SWS/P20 P13 P12 P11 P10 P03
COM0 COM1 COM2 COM3 BIAS VLC0 VLC1 VLC2 P40/KS0 P41/KS1 P42/KS2 P43/KS3 VSS P50/KS4 P51/KS5 P52/KS6 P53/KS7 P00/INT4 P01 P02
C2 47P
X1 2.42MHz
C3 47P
C4 27P
R6 330K
X2 32.768KHz
C5 15P
R5 0
C12 330
Q2
R1 1.8
LED1
C1 100
3V
R3 150
Q1
R2 4.7K
R4 1K
D3
D4
(HR-S7000EH ONLY)
D5
D6
TV SW1 VTR
JP1
JP2
JP3
IC2
VCC
GND
R10 100K
R9 100K
C8 0.1
R7 1M
R8 5.6K
X3 400KHz
C6 330P
C7 330P
PEAC0382
A B C D E F G H
1 2 3 4 5

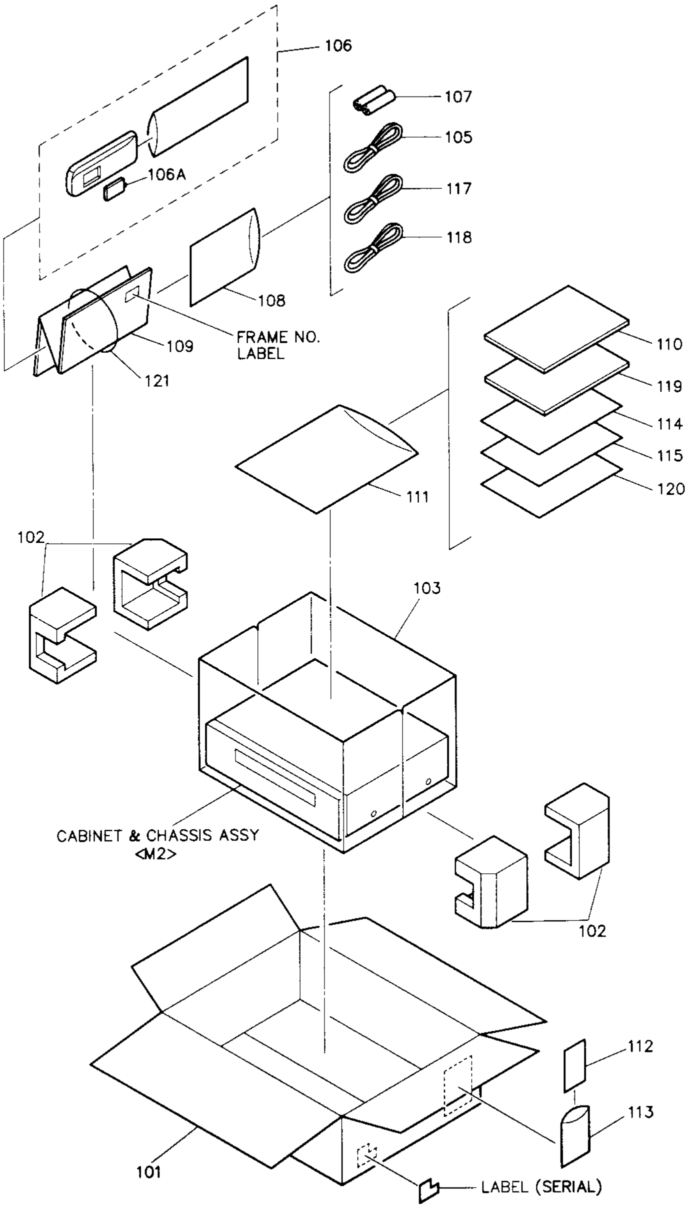
Key No.	Key NAME
1	PROG.
2	2
3	5
4	8
5	0
6	TRANS
7	VOL +
8	VOL −
9	RE−VIEW
10	1
11	4
12	7
13	CANCEL
14	SELECT/C.MEMOY
15	TV PROG. +
16	TV PROG. −
17	ADJUST
18	9
19	FF ▷▷
20	TIMER
21	OPERATE
22	3
23	6
24	PAUSE
25	R.A.E IN/OUT
26	A. MONITOR
27	R.A.E START
28	PUSH JOG +
29	DISPLAY
30	PLAY ▷
31	STOP ■
32	−/−−
33	A/B
34	STORE
35	R.A. EDIT
36	PUSH JOG −
37	REC ●
38	TV/VIDEO
39	REW ◁◁
40	SCENE FINDER
37+30	REC START
37+24	REC PAUSE

SECTION 5
PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING AND ACCESSORY ASSEMBLY <M1>


106
107
105
106A
117
118
108
FRAME NO. LABEL
109
121
110
119
114
115
120
111
102
103
CABINET & CHASSIS ASSY <M2>
102
112
113
101
LABEL (SERIAL)

****

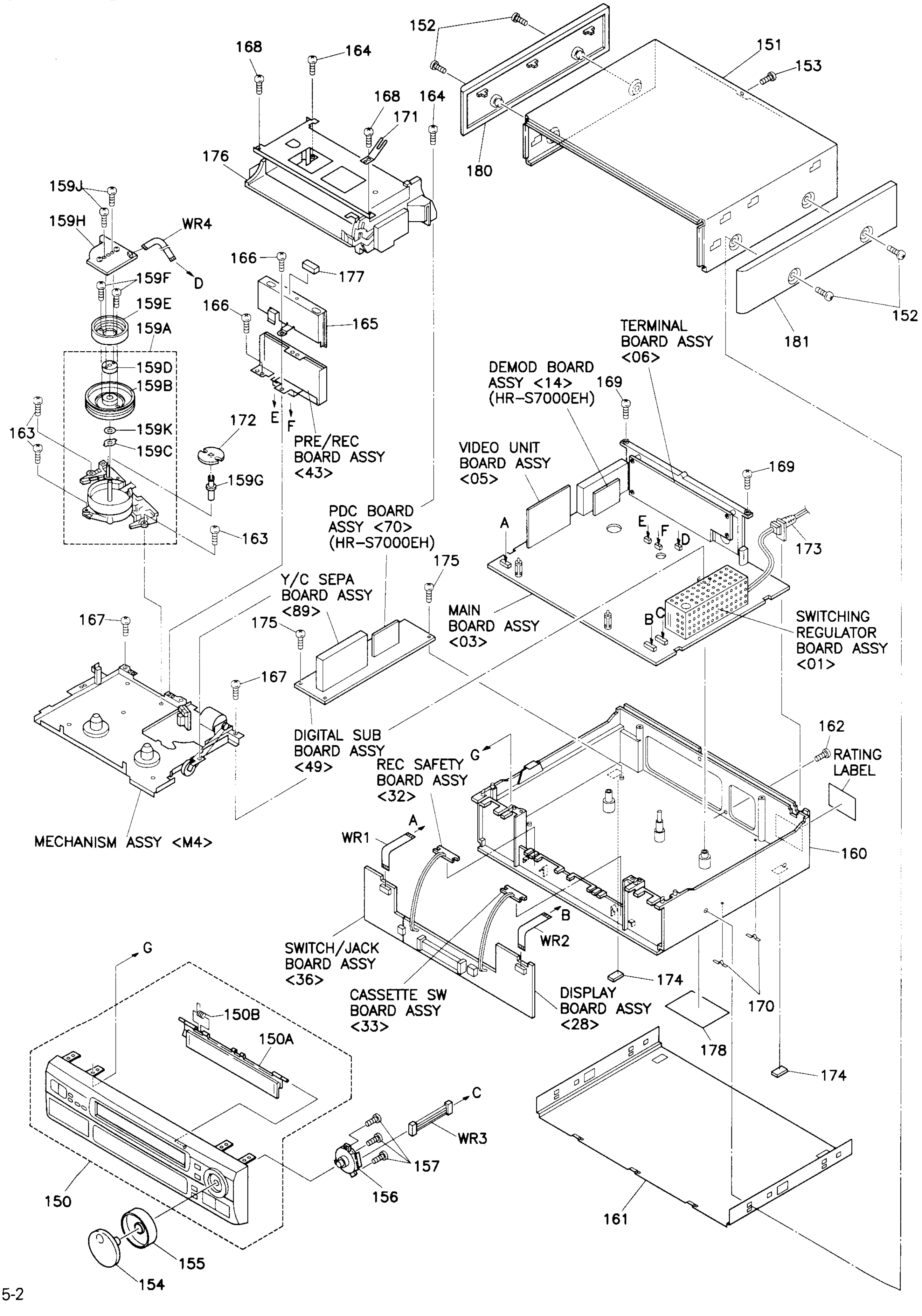
PACKING AND ACCESSORY ASSEMBLY <M1>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION
	101	PQ35361-11	PACKING CASE,S7000EG
		PQ35361-12	PACKING CASE,S7000EH
	102	PQ35362A-1	CUSHION ASSEMBLY
	103	PQM30021-95	POLY(FOAM)BAG
⚠	105	PEAC0300-02	RF CABLE
⚠	106	PQ21831G	REMOTE CONTROLLER,S7000EG
⚠		PQ21831H	REMOTE CONTROLLER,S7000EH
	106A	PQ46491	COVER(BATTERY)
	107	R03BPA-2ST	BATTERY,X2
	108	PQ35364	POLY BAG
	109	PQ35274-1-1	SHEET,ACCESSORY
⚠	110	PU30425-1768	INSTRUCTIONS,S7000EH
⚠		PU30425-1762	INSTRUCTIONS,S7000EG
	111	PQ35364-4	POLY BAG
	112	BT-20135	WARRANTY CARD,S7000EG
	113	PQ33909	POLY BAG,S7000EG
	114	PQ34978-15	SHEET(S.V.)
	115	PQ35231	SHEET(G.PROG.)
	117	PU60111	S CABLE
	118	PU56142-5	PIN CORD ASSEMBLY
⚠	119	PU30425-1769	INSTRUCTIONS,S7000EH
	120	PQ45146-89	SHEET(SPAIN),S7000EH
	121	PQ46504	RUBBER BAND

5.2 CABINET AND CHASSIS ASSEMBLY <M2>

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

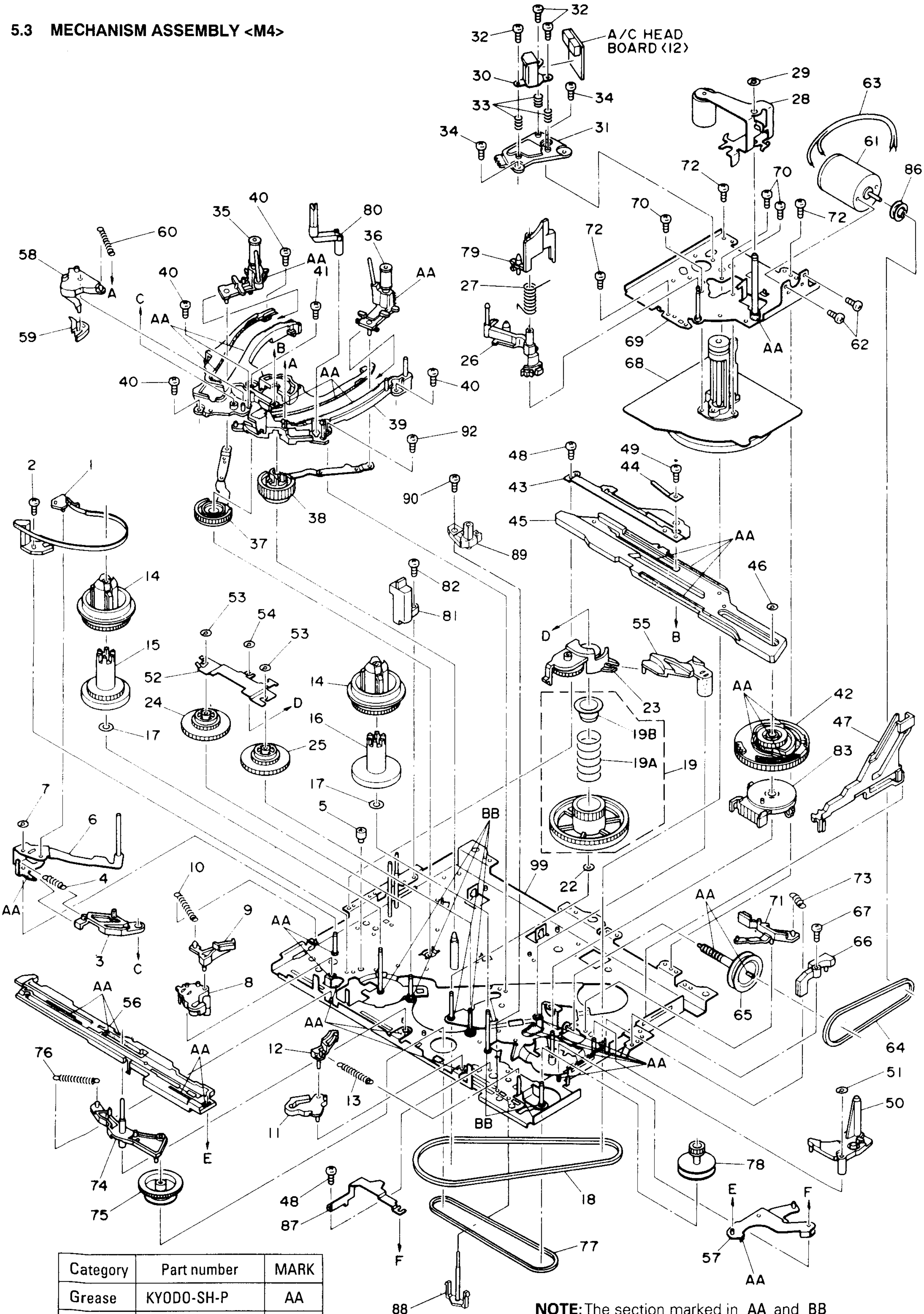

152
151
153
168
164
168
164
171
176
180
159J
159H
WR4
D
166
177
159F
159E
159A
166
165
159D
159B
163
159K
159C
172
159G
E
F
PRE/REC BOARD ASSY <43>
163
TERMINAL BOARD ASSY <06>
DEMOD BOARD ASSY <14> (HR-S7000EH)
169
181
152
VIDEO UNIT BOARD ASSY <05>
169
PDC BOARD ASSY <70> (HR-S7000EH)
A
E
F
D
173
175
Y/C SEPA BOARD ASSY <89>
175
167
MAIN BOARD ASSY <03>
B
C
SWITCHING REGULATOR BOARD ASSY <01>
167
DIGITAL SUB BOARD ASSY <49>
REC SAFETY BOARD ASSY <32>
G
162
RATING LABEL
MECHANISM ASSY <M4>
WR1
A
160
B
WR2
SWITCH/JACK BOARD ASSY <36>
G
CASSETTE SW BOARD ASSY <33>
DISPLAY BOARD ASSY <28>
174
170
150B
150A
178
174
C
WR3
157
156
150
161
155
154

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION
************************************			

CABINET AND CHASSIS ASSEMBLY <M2>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION
	150	PQ11802AD-6	FRONT PANEL ASSEMBLY,S7000EG
		PQ11802AE	FRONT PANEL ASSEMBLY,S7000EH
	150A	PQ21818-22	CASSETTE DOOR,S7000EG
		PQ21818-23	CASSETTE DOOR,S7000EH
	150B	PQ46448	TORSION SPRING
⚠	151	PQ11676-19	TOP COVER
	152	PQ43930	SPECIAL SCREW,X4 SIDE PANEL
	153	SDSF3010M	SCREW,TOP COVER
	154	PQ35247-5	KNOB(JOG)
	155	PQ35295-5	KNOB(SHUTTLE)
	156	PEME0757-03	JOG SHUTTLE ASSEMBLY
	157	SDSF2608Z	SCREW,X3
	159A	PDM2261AB	DRUM SUB ASSEMBLY
	159B	PDM3353AU	UPPER DRUM ASSEMBLY
	159C	PDM4400C	BRUSH ASSEMBLY
	159D	PDM4345A	COLLAR ASSEMBLY
	159E	PDZ0141-2	ROTOR ASSEMBLY
	159F	SPSH2660Z	SCREW,X2
	159G	PDM4311A-1	ROLLER ASSEMBLY
⚠	159H	PDZ0141-1-2	STATOR ASSEMBLY
	159J	SPSP2606Z	SCREW,X2
	159K	PDM4050-9	WASHER
⚠	160	PQ11666-3	BOTTOM CHASSIS
⚠	161	PQ11668-2	BOTTOM COVER
	162	SDSF3010M	SCREW TERMINAL
	163	SPST2608Z	SCREW,X3 DRUM
	164	SPST2610Z	SCREW,X2 CASS HOUSING ASSY
	165	PQ21806	SHIELD CASE,PRE REC
	166	SDST2606Z	SCREW,X2 PRE REC
	167	SDSF4012Z	SCREW,X2 MECH
	168	SDSF3010Z	SCREW,X2 CASS HOUSING
	169	SDSF3010Z	SCREW,X2 TERMINAL
⚠	170	PQ46412-2	EARTH SPRING,X2
	171	PQ41556	EARTH PLATE,CASS HOUSING
	172	PQ45160	INERTIA PLATE
⚠	173	QMP4A10-170	POWER CORD
	174	PQ43013-5	FOOT,X2
	175	SDSF3010Z	SCREW,X2 DIGITAL SUB BOARD
	176	PUS29724A-5	CASSETTE HOUSING ASSY
	177	PQM30029-235	SPACER,S CASE
⚠	178	PQ46485	SPACER(SAFETY),BOTTOM CHASSIS
	180	PQ11842	SIDE PANEL(L)
	181	PQ11843	SIDE PANEL(R)
	WR1	PW30802-1026	WIRE,CN101
	WR2	PW30802-1516	WIRE,CN702
	WR3	PW30202-0771613	WIRE,JOG
	WR4	PW30803-0422	WIRE,DRUM

5.3 MECHANISM ASSEMBLY <M4>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A/C HEAD BOARD (12)
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AA
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BB
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AA
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Category	Part number	MARK
Grease	KYODO-SH-P	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in AA and BB indicate lubrication and greasing areas.

MECHANISM ASSEMBLY <M4>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION
	1	PQ46298A-5	TENSION BAND ASSEMBLY
	2	SDST2608Z	SCREW
	3	PQ35012-1-3	TENSION ARM LEVER
	4	PQM30001-385109	TENSION SPRING
	5	PQ46302-1-3	ADJUST PIN
	6	PQ46303A-3	TENSION ARM ASSEMBLY
	7	PQM30017-47	SLIT WASHER
	8	PQ46305B-3	MAIN BRAKE ASSEMBLY(SUPPLY)
	9	PQ46306A-3	SUB BRAKE ASSEMBLY(SUPPLY)
	10	PQM30001-393	TENSION SPRING
	11	PQ46308A-3	MAIN BRAKE ASSEMBLY(TAKE UP)
	12	PQ46309A-4	SUB BRAKE ASSEMBLY (TAKE UP)
	13	PQM30001-389102	TENSION SPRING
	14	PQ21683-1-7	REEL DISK,X2
	15	PQ35014-1-1	SLIT DISK(SUPPLY)
	16	PQ35015-1-1	SLIT DISK(TAKE UP)
	17	Q03093-828	WASHER,X2
	18	PQM30003-33	BELT(CAPSTAN)
	19	PQ46497B	PULLEY ASSEMBLY
	19A	PQM30002-233	COMPRESSION SPRING
	19B	PQ46311	SPRING CAP
	22	PQM30018-69	SPACER
	23	PQ46312B	IDLER ARM ASSEMBLY
	24	PQ46316A-1	CLUTCH UNIT(SUPPLY)
	25	PQ46323A-1	CLUTCH UNIT(TAKE UP)
	26	PQ46325B	GUIDE ARM ASSEMBLY
	27	PQ46326-1-2	TORSION SPRING
	28	PQ46327A	PINCH ROLLER ARM ASSEMBLY
	29	PQM30017-24	SLIT WASHER
	30	PEHE0182	AUDIO/CONTROL HEAD
	31	PQ35206	HEAD BASE
	32	PQ43687A	SPECIAL SCREW,X3
	33	PQM30002-192	COMPRESSION SPRING,X3
	34	SDST2604Z	SCREW,X2
	35	PQ46330A-1	POLE BASE ASSY(SUPPLY)
	36	PQ46331A-1	POLE BASE ASSY(TAKE UP)
	37	PQ46332A-3	LOADING ARM ASSY(SUPPLY)
	38	PQ46337A-4	LOADING ARM ASSY(TAKE UP)
	39	PQ11657-1-9	GUIDE RAIL
	40	SPST2608Z	SCREW,X4
	41	SDST2612Z	SCREW
	42	PQ21684-1-3	CONTROL CAM
	43	PQ35138-1-2	CONTROL BRACKET
	44	PQ46423	EARTH PLATE
	45	PQ11658-1-5	CONTROL PLATE
	46	PQM30017-8	SLIT WASHER
	47	PQ21685-2-6	PINCH PLATE
	48	SPST2606Z	SCREW,X2
	49	SPSF2608M	SCREW
	50	PQ46342A-6	LEVER ASSY
	51	PQM30017-8	SLIT WASHER
	52	PQ35083-1-7	REEL BRACKET
	53	PQM30017-51	SLIT WASHER,X2
	54	Q03093-830	WASHER
	55	PQ35026-1-4	IDLER LEVER
	56	PQ11659-1-10	SLIDE PLATE
	57	PQ46344A-2	CHANGE LEVER ASSEMBLY
	58	PQ21686	TAKE UP LEVER
	59	PQ46345	TAKE UP HEAD
	60	PQM30001-387106	TENSION SPRING
⚠	61	PU60628-4	LOADING MOTOR
	62	SPSP3003Z	SCREW,X2
	63	PW30101-80AJ632	WIRE
	64	PQM30003-34-17	BELT
	65	PQ46395A	WORM GEAR ASSEMBLY
	66	PQ21699	WORM BEARING
	67	SPST2606Z	SCREW
⚠	68	PU61435	CAPSTAN MOTOR
	69	PQ46347B-8	SUB DECK ASSEMBLY
	70	SPSG2608Z	SCREW,X3
	71	PQ46356A-1	CAPSTAN BRAKE ASSEMBLY
	72	SDST2608Z	SCREW,X3
	73	PQM30001-384101	TENSION SPRING,C.BRAKE
	74	PQ46353A-2	CHANGE ARM ASSEMBLY
	75	PQ46354	CHANGE GEAR
	76	PQM30001-386	TENSION SPRING
	77	PQM30003-35	BELT
	78	PQ46355	CASSETTE GEAR
	79	PQ35030-1-4	LID GUIDE
	80	PQ21689	LED PRISM
	81	PEHE0237	FULL ERASE HEAD
	82	SDST2610Z	SCREW
	83	PU61432-1-1	ROTARY ENCODER
	86	PQ43546-1-2	MOTOR PULLEY
	87	PQ35217-1-2	CONTROL BRACKET 2
	88	PQ46473	S-SW PIN
	89	PQ46474-1-2	S-SW HOLDER
	90	SPST2606Z	SCREW
	92	SDST2608Z	SCREW
	99	PQ21680B-11	MAIN DECK ASSEMBLY

5.4 ELECTRICAL PARTS LIST

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SW.REGULATOR BOARD ASSEMBLY <01>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	PWBA	PB10958A	SWITCH REG UNIT BOARD ASSY	
	IC51	L5431	IC	
	Q1	2SK1459-CB14	FE TRANSISTOR	
	Q2	2SC3616(ML)	TRANSISTOR	
	D1	1N4148M	DIODE	
		or MA165	DIODE	
		or 1SS133	DIODE	
	D2	10ELS4	FR DIODE	
		or AU01	FR DIODE	
		or ERA18-04-T2	FR DIODE	
		or 1SR153-400-T2	FR DIODE	
	D3	10ELS4	FR DIODE	
		or AU01	FR DIODE	
		or ERA18-04-T2	FR DIODE	
		or 1SR153-400-T2	FR DIODE	
	D4	RD27ES-T1B2	ZENER DIODE	
		or UZ27BSB	ZENER DIODE	
		or MTZJ27(B)	ZENER DIODE	
	D5	1N4148M	DIODE	
		or MA165	DIODE	
		or 1SS133	DIODE	
	D51	1SR153-200-T2	FR DIODE	
		or ERA18-02-T2	FR DIODE	
		or 10ELS2	FR DIODE	
		or AU01Z	FR DIODE	
	D52	F5KQ100B	SB DIODE	
	D53	FMB-24	BARRIER DIODE	
		or F5KQ40B	BARRIER DIODE	
		or MA7D49	SB DIODE	
		or YG801C04	SB DIODE	
	D54	10ELS2	FR DIODE	
		or 1SR153-200-T2	FR DIODE	
		or AU01Z	FR DIODE	
		or ERA18-02-T2	FR DIODE	
	D55	RD15ES-T1B1	ZENER DIODE	
		or UZ15BSA	DIODE	
	D56	1N4148M	DIODE	
		or MA165	DIODE	
		or 1SS133	DIODE	
	D57	1N4148M	DIODE	
		or 1SS133	DIODE	
		or MA165	DIODE	
	D58	1SS131Y	DIODE	
	D59	1SS131Y	DIODE	
	D60	1SS131Y	DIODE	
	D61	1SS131Y	DIODE	
	D62	HZ30CP	ZENER DIODE	
	D63	HZ27BP	ZENER DIODE	
	R1	QRD161J-334	RESISTOR	330kΩ,1/6W
	R2	QRD161J-334	RESISTOR	330kΩ,1/6W
	R3	QRD161J-683	RESISTOR	68kΩ,1/6W
	R4	QRG02DJ-331X	OMF RESISTOR	330Ω,2W
	R5	QRX014J-R39Z	MF RESISTOR	0.39Ω,1W
	R6	QRD161J-821	RESISTOR	820Ω,1/6W
	R7	QRD161J-122	RESISTOR	1.2kΩ,1/6W
	R8	QRG029J-683G	OMF RESISTOR	68kΩ,2W
	R51	QRD161J-222	RESISTOR	2.2kΩ,1/6W
	R52	QRV144F-1212AY	CMF RESISTOR	12.1kΩ,1/4W
	R53	QRV144F-3011AY	RESISTOR	3.01kΩ,1/4W
	R54	QRD161J-472	RESISTOR	4.7kΩ,1/6W
	R55	QRG02DJ-471X	OMF RESISTOR	470Ω,2W
	R56	QRG02DJ-471X	OMF RESISTOR	470Ω,2W
	R57	QRG01DJ-150X	MF RESISTOR	15Ω,1W
	R58	QRG02DJ-182X	OMF RESISTOR	1.8kΩ,2W
⚠	C1	QCZ9026-222	CAPACITOR	0.0022μF
	C2	QETC1HM-225	E CAPACITOR	2.2μF,50V
	C3	QFLA1HJ-123Z	F CAPACITOR	0.012μF,50V
	C4	QCZ0212-472	CAPACITOR	0.0047μF,1kV
	C5	QCBB1HJ-121	CAPACITOR	120pF,50V
	C7	QFV11HJ-104	F CAPACITOR	0.1μF,50V
	C51	QEMR1AM-107	E CAPACITOR	100μF,10V
	C53	QEMQ1AM-128	E CAPACITOR	1200μF,10V
	C54	QEMQ1CM-827	E CAPACITOR	820μF,16V
	C55	QEMN1EM-187	E CAPACITOR	180μF,25V
	C56	QCY31HK-152	CAPACITOR	0.0015μF,50V
	C57	QCY31HK-472	CAPACITOR	0.0047μF,50V
	C58	QETC1HM-106	E CAPACITOR	10μF,50V
	C59	QETC1JM-226	E CAPACITOR	22μF,63V
	C60	QETC1HM-226	E CAPACITOR	22μF,50V
	C61	QFLA1HJ-103Z	F CAPACITOR	0.01μF,50V
	C62	QFLA1HJ-223Z	F CAPACITOR	0.022μF,50V
	C63	QFN31HJ-683	F CAPACITOR	0.068μF,50V
	C64	QETC1CM-227	E CAPACITOR	220μF,16V
	C65	QETC1AM-337	E CAPACITOR	330μF,10V
	L51	PELN0270-330KZ	COIL	33μH
	L52	PELN0270-330KZ	COIL	33μH
	L53	PELN0270-330KZ	COIL	33μH
	K1	PELN0662-Z	FERRATE BEADS	
	K2	PELN0662-Z	FERRATE BEADS	
⚠	PC1	PC123FY2	PH COUPLER	
⚠	T1	PELN1065	SW TRANS	
	K51	PELN0662-Z	FERRATE BEADS	
	K52	PELN0662-Z	FERRATE BEADS	
	K53	PELN0662-Z	FERRATE BEADS	
⚠	HS1	PQ46583	HEAT SINK,X2 Q1 D52 D53	
	JP1	PEMC0712-105	PIN HEADER	
	SCW1	SDST3008Z	SCREW,X2	
	SCW3	SDST3006Z	SCREW,X3 Q1 D52 D53	
	JP51	PEMC0712-110	PIN HEADER	

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MAIN BOARD ASSEMBLY <03>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION
	PWBA	PB10971C-01	MAIN BOARD ASSEMBLY,S7000EH
		PB10971A-02	MAIN BOARD ASSEMBLY,S7000EG
	OTH1	PQ46408-1-2	SENSOR CAP,X2
⚠	TU1	PERF0202	TUNER UNIT,S7000EG
⚠		PERF0202-02	TUNER UNIT,S7000EH
⚠	TU2	PERF0191	IF UNIT
	IC1	BA7795LS	IC
		or XRA7795LS	IC,S7000EG
		or XLA7795LS	IC,S7000EH
	IC101	JCP0056	IC
	IC102	BA6138	IC
	IC103	BA3129	IC

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION
IC104	LA7151	IC
IC201	TC4W53F	IC
IC451	BA7039	IC
	or XRA7039	IC
IC601	HD6433928TA28F	QFP IC (MCU)
	or HD6473929TFA28	QFP IC (MCU)
IC602	AT93C56-10PC	IC
	or XLJ93LC56A	IC,S7000EG
	or XL93LC56AP	IC,S7000EH
	or 93LC56/P	IC
	or P3LC56B/P	IC
	or 93C56/P	IC
IC603	S-80728AN-DR-X	IC
	or RH5VL28AA-XE	IC
	or RH5VA28AA-XE	IC
IC604	TA7291S	IC
IC607	M50253P	IC
	or BU2090	IC
IC608	M50253P	IC
	or BU2090	IC
IC609	M66007P	IC
IC751	M37470M3-054SP	IC
	or M37470E8-148SP	IC
IC1001	SDA5642	IC
IC1104	UPC1391H	IC
IC1105	TDA8415	IC
Q1	2SA1576(QR)	TRANSISTOR
Q2	2SA1576(QR)	TRANSISTOR
Q3	2SC4081(QR)	TRANSISTOR
Q4	2SA1576(QR)	TRANSISTOR
Q5	2SC4081(QR)	TRANSISTOR
Q6	DTC144WU	TRANSISTOR
Q101	DTC144WU	TRANSISTOR
Q201	2SA1577(QR)	TRANSISTOR
Q202	2SC4097(QR)	TRANSISTOR
Q203	DTA144TU	TRANSISTOR
Q204	DTC144WU	TRANSISTOR
Q205	DTA144WU	TRANSISTOR
Q206	2SC4081(RS)	TRANSISTOR
Q207	2SA1576(RS)	TRANSISTOR
Q208	DTA144EU	TRANSISTOR
Q209	DTC144WU	TRANSISTOR
Q210	2SC4081(RS)	TRANSISTOR
Q211	2SC4081(RS)	TRANSISTOR
Q212	DTC144WU	TRANSISTOR
Q213	2SA1576(QRS)	TRANSISTOR
Q214	2SA1576(QRS)	TRANSISTOR
Q216	DTC144WU	TRANSISTOR
Q218	DTA124EU	TRANSISTOR
Q219	2SA1576(QRS)	TRANSISTOR
Q220	2SC4081(RS)	TRANSISTOR
Q221	DTC144WU	TRANSISTOR
Q222	2SC4081(RS)	TRANSISTOR
Q224	2SA1576(QRS)	TRANSISTOR
Q225	DTC144EU	TRANSISTOR
Q226	2SC4081(RS)	TRANSISTOR
Q227	2SC4081(RS)	TRANSISTOR
Q228	DTC144EU	TRANSISTOR
Q230	DTC124EU	TRANSISTOR
Q231	DTC144WS	TRANSISTOR
Q232	DTC144WS	TRANSISTOR
Q401	DTC114EU	TRANSISTOR
Q601	2SC4081(QRS)	TRANSISTOR
Q602	DTC114WU	TRANSISTOR
Q603	DTC124EU	TRANSISTOR
Q604	PN268VI	PHOTO TRANSISTOR
Q605	PN268VI	PHOTO TRANSISTOR
Q606	DTC124EU	TRANSISTOR
Q607	DTC143EU	TRANSISTOR
Q608	DTC124EU	TRANSISTOR
Q609	DTC124EU	TRANSISTOR
Q611	2SB1256	TRANSISTOR
Q612	DTC114TU	TRANSISTOR
Q851	2SD1913(RS)	TRANSISTOR
Q852	2SC1740S	TRANSISTOR
	or 2SC2785(J-E)-T	TRANSISTOR
Q853	2SC3616(MLK)	TRANSISTOR
Q854	DTA114EU	TRANSISTOR
Q855	2SD2144S(UVW)	TRANSISTOR
Q859	2SD1450S,T	TRANSISTOR
	or 2SD1302(ST)	TRANSISTOR
Q901	DTC114EU	TRANSISTOR
Q902	2SB810H,J	TRANSISTOR
Q903	2SC3068	TRANSISTOR
Q904	2SA1576(RS)	TRANSISTOR
Q905	2SC4081(RS)	TRANSISTOR
Q906	DTC114EU	TRANSISTOR
Q908	2SA1576(RS)	TRANSISTOR
Q909	DTA144EU	TRANSISTOR
Q1106	IMX3	TRANSISTOR
Q1107	DTC144EU	TRANSISTOR
Q1108	DTA124EU	TRANSISTOR
D1	1SS133	DIODE,S7000EH
	or MA165	DIODE,S7000EH
	or 1N4148M	DIODE,S7000EH
D2	RD6.2ESB2	ZENER DIODE
D3	DAP202U	DIODE
D201	DAP202U	DIODE
D202	1N4148M	DIODE
	or MA165	DIODE
	or 1SS133	DIODE
D203	1SS356	DIODE
D204	DAP202U	DIODE
D205	1N4148M	DIODE
	or MA165	DIODE
	or 1SS133	DIODE
D206	DAP202U	DIODE
D601	RD9.1ES-T1B2	ZENER DIODE
D602	11ES2	DIODE
D603	1N4148M	DIODE
	or 1SS133	DIODE
	or MA165	DIODE
D604	11ES2	DIODE
D605	1N4148M	DIODE
	or 1SS133	DIODE
	or MA165	DIODE
D606	DAP202U	DIODE
D609	1N4148M	DIODE
	or MA165	DIODE
	or 1SS133	DIODE
D610	SIR-381SB3FM	LE DIODE
D611	1N4148M	DIODE
	or MA165	DIODE
	or 1SS133	DIODE

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
D612	1N4148M	DIODE	
	or 1SS133	DIODE	
	or MA165	DIODE	
D613	1N4148M	DIODE	
	or MA165	DIODE	
	or 1SS133	DIODE	
D614	1N4148M	DIODE	
	or 1SS133	DIODE	
	or MA165	DIODE	
D615	1N4148M	DIODE	
	or MA165	DIODE	
	or 1SS133	DIODE	
D616	11ES2	DIODE	
D801	10E6-F2	DIODE	
D802	10E6-F2	DIODE	
D803	10E6-F2	DIODE	
D804	10E6-F2	DIODE	
D862	RD5.1JS-T1B2	ZENER DIODE	
D863	1N4148M	DIODE	
	or 1SS133	DIODE	
	or MA165	DIODE	
D901	MTZ10D	ZENER DIODE	
D903	1SS133	DIODE	
	or 1N4148M	DIODE	
	or MA165	DIODE	
D904	1SS133	DIODE	
	or MA165	DIODE	
	or 1N4148M	DIODE	
D905	1SS133	DIODE	
	or 1N4148M	DIODE	
	or MA165	DIODE	
D1102	DAN202U	DIODE	
R1	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R2	QRD161J-221	RESISTOR	220Ω,1/6W
R3	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R4	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R5	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R6	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R7	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R8	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R9	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R10	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R11	QRD161J-153	RESISTOR	15kΩ,1/6W
R13	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R14	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R15	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R16	QRSA08J-123YN	RESISTOR,S7000EH	12kΩ,1/10W
R17	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R19	QRSA08J-475YN	RESISTOR	4.7MΩ,1/10W
R20	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R21	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R22	QRSA08J-274YN	RESISTOR	270kΩ,1/10W
R23	QRSA08J-151YN	RESISTOR	150Ω,1/10W
R24	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R26	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R29	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R30	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R31	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R32	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R33	QRD161J-101	RESISTOR	100Ω,1/6W
R34	QRSA08J-3R3YN	RESISTOR	3.3Ω,1/10W
R35	QRSA08J-153YN	RESISTOR	15kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R36	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R37	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R38	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R39	QRSA08J-151YN	RESISTOR	150Ω,1/10W
R40	QRSA08J-3R3YN	RESISTOR	3.3Ω,1/10W
R41	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R42	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R43	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R51	QRD161J-0R0	RESISTOR	0Ω,1/6W
R52	QRD161J-0R0	RESISTOR	0Ω,1/6W
R101	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R102	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R103	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R104	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R105	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R106	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R107	QRSA08J-511YN	RESISTOR	510Ω,1/10W
R108	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R109	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R110	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R111	NRVA62B-153N	RESISTOR	15kΩ,1/16W
R112	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R113	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R114	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R115	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R116	QRSA08J-334YN	RESISTOR	330kΩ,1/10W
R117	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
R118	NRVA62B-113N	RESISTOR	11kΩ,1/16W
R119	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R120	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R121	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R122	QRSA08J-511YN	RESISTOR	510Ω,1/10W
R123	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R124	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R125	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R126	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R127	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R128	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R129	QRSA08J-183YN	RESISTOR,S7000EG	18kΩ,1/10W
R130	QRSA08J-0R0Y	RESISTOR,S7000EH	0Ω,1/10W
	QRSA08J-393YN	RESISTOR,S7000EG	39kΩ,1/10W
R131	QRD161J-221	RESISTOR	220Ω,1/6W
R132	QRSA08J-0R0Y	RESISTOR,S7000EH	0Ω,1/10W
	QRSA08J-393YN	RESISTOR,S7000EG	39kΩ,1/10W
R133	QRSA08J-183YN	RESISTOR,S7000EG	18kΩ,1/10W
R134	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R135	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R136	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R137	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R138	QRSA08J-0R0Y	RESISTOR,S7000EG	0Ω,1/10W
	QRSA08J-333YN	RESISTOR,S7000EH	33kΩ,1/10W
R139	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R140	QRSA08J-0R0Y	RESISTOR,S7000EG	0Ω,1/10W
	QRSA08J-333YN	RESISTOR,S7000EH	33kΩ,1/10W
R141	QRSA08J-103YN	RESISTOR,S7000EH	10kΩ,1/10W
R142	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R143	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R144	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R145	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R201	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R202	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R203	QRSA08J-512YN	RESISTOR	5.1kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R204	QRD123J-331SX	RESISTOR	330Ω,1/2W
R205	QRSA08J-752YN	RESISTOR	7.5kΩ,1/10W
R207	QRSA08J-911YN	RESISTOR	910Ω,1/10W
R208	QRSA08J-910YN	RESISTOR	91Ω,1/10W
R209	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R210	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R211	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R212	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R213	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R214	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R215	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R216	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R217	QRSA08J-330YN	RESISTOR	33Ω,1/10W
R218	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R219	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R222	QRSA08J-363YN	RESISTOR	36kΩ,1/10W
R223	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R224	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R225	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R226	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R228	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R229	QRSA08J-224YN	RESISTOR	220kΩ,1/10W
R230	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R231	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R232	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R233	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R234	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R236	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R237	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R238	QRSA08J-821YN	RESISTOR	820Ω,1/10W
R239	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R241	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R242	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R243	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R245	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R246	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R247	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R248	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R249	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R250	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R251	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R252	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
R253	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R254	QRSA08J-270YN	RESISTOR	27Ω,1/10W
R255	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R256	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R257	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R258	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R259	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R260	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R261	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R262	QRSA08J-622YN	RESISTOR	6.2kΩ,1/10W
R263	QRD161J-103	RESISTOR	10kΩ,1/6W
R401	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R402	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R403	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R404	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R405	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R406	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R408	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R409	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R410	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R411	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10
R412	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10
R413	QRSA08J-103YN	RESISTOR	10kΩ,1/10
R414	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R415	QRSA08J-103YN	RESISTOR	10kΩ,1/10
R418	QRSA08J-821YN	RESISTOR	820Ω,1/10
R451	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R452	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10
R453	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R454	QRSA08J-103YN	RESISTOR	10kΩ,1/10
R455	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10
R456	QRSA08J-124YN	RESISTOR	120kΩ,1/10
R601	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R602	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R603	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R604	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R605	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R606	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R607	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R608	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R609	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R610	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R611	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R612	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R613	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R614	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R615	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R616	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R617	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10
R618	QRSA08J-271YN	RESISTOR	270Ω,1/10
R619	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R620	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R621	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R622	QRSA08J-271YN	RESISTOR	270Ω,1/10
R623	QRSA08J-271YN	RESISTOR	270Ω,1/10
R624	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R625	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R626	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R627	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R628	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R630	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R631	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R632	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R633	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R634	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R635	QRSA08J-101YN	RESISTOR	100Ω,1/10
R636	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R637	QRSA08J-102YN	RESISTOR	1kΩ,1/10
R638	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R639	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10
R640	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R641	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10
R642	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R643	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R644	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R645	QRSA08J-0R0Y	RESISTOR	0Ω,1/10
R646	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R647	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R648	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R649	QRSA08J-0R0Y	RESISTOR	0Ω,1/10
R650	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10
R651	QRSA08J-104YN	RESISTOR	100kΩ,1/10

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R653	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R654	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R655	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R656	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R657	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R658	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R659	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R660	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R661	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R662	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R663	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R664	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R665	QRSA08J-272YN	RESISTOR	2.7kΩ,1/10W
R666	QRSA08J-474YN	RESISTOR	470kΩ,1/10W
R667	QRSA08J-334YN	RESISTOR	330kΩ,1/10W
R668	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R669	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R670	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R671	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R672	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R673	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R674	QRSA08J-105YN	RESISTOR	1MΩ,1/10W
R675	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R676	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R677	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R678	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R680	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R681	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R682	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R685	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R686	QRD161J-750	RESISTOR	75Ω,1/6W
R687	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R688	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R689	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R690	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R691	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R692	QRD161J-103	RESISTOR,S7000EH	10kΩ,1/6W
R693	QRD161J-0R0	RESISTOR,S7000EG	0Ω,1/6W
R694	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R695	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R696	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R697	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R698	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R700	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R701	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R702	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R703	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R704	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R705	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R706	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R707	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R708	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R709	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R710	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R711	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R712	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R713	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R714	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R715	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R716	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R717	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R718	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R721	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R722	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R723	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R724	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R725	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R726	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R727	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R728	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R729	QRD161J-103	RESISTOR	10kΩ,1/6W
R730	QRD161J-393	RESISTOR	39kΩ,1/6W
R751	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R752	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R753	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R754	QRSA08J-105YN	RESISTOR	1MΩ,1/10W
R755	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R756	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R757	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R758	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R759	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R760	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R761	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R762	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R763	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R764	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R765	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R776	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R777	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R778	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R856	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R858	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R859	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R860	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R861	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R862	QVPA606-471Z	V RESISTOR,SWD 5V	
R863	QRSA08J-511YN	RESISTOR	510Ω,1/10W
R864	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R866	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R868	QRD161J-473	RESISTOR	47kΩ,1/6W
R872	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R901	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R902	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R903	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R905	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R906	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
R907	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R908	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R909	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R910	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R911	QRSA08J-0R0Y	RESISTOR,S7000EG	0Ω,1/10W
	QRSA08J-392YN	RESISTOR,S7000EH	3.9kΩ,1/10W
R912	QRSA08J-182YN	RESISTOR,S7000EH	1.8kΩ,1/10W
R916	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R937	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R938	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R939	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R1001	QRSA08J-824YN	RESISTOR,S7000EG	820kΩ,1/10W
R1002	QRSA08J-101YN	RESISTOR,S7000EG	100Ω,1/10W
R1003	QRSA08J-562YN	RESISTOR,S7000EG	5.6kΩ,1/10W
R1004	QRSA08J-104YN	RESISTOR,S7000EG	100kΩ,1/10W
R1007	QRSA08J-105YN	RESISTOR,S7000EG	1MΩ,1/10W
R1008	QRSA08J-824YN	RESISTOR,S7000EG	820kΩ,1/10W
R1009	QRSA08J-202YN	RESISTOR,S7000EG	2kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R1014	QRSA08J-271YN	RESISTOR,S7000EG	270Ω,1/10W
R1015	QRSA08J-271YN	RESISTOR,S7000EG	270Ω,1/10W
R1141	QRSA08J-471YN	RESISTOR,S7000EG	470Ω,1/10W
R1142	QRSA08J-561YN	RESISTOR,S7000EG	560Ω,1/10W
R1143	QRSA08J-271YN	RESISTOR,S7000EG	270Ω,1/10W
R1144	QRSA08J-391YN	RESISTOR,S7000EG	390Ω,1/10W
R1145	QVPA606-103Z	V RESISTOR,SEPARATION S7000EG	
R1147	QRSA08J-272YN	RESISTOR,S7000EG	2.7kΩ,1/10W
R1148	QRSA08J-272YN	RESISTOR,S7000EG	2.7kΩ,1/10W
R1149	QRSA08J-222YN	RESISTOR,S7000EG	2.2kΩ,1/10W
R1150	QRSA08J-222YN	RESISTOR,S7000EG	2.2kΩ,1/10W
R1151	QRSA08J-473YN	RESISTOR,S7000EG	47kΩ,1/10W
R1152	QRSA08J-471YN	RESISTOR,S7000EG	470Ω,1/10W
R1153	QRSA08J-471YN	RESISTOR,S7000EG	470Ω,1/10W
R1154	QRSA08J-473YN	RESISTOR,S7000EG	47kΩ,1/10W
R1155	QRSA08J-472YN	RESISTOR,S7000EG	4.7kΩ,1/10W
R1156	QRSA08J-472YN	RESISTOR,S7000EG	4.7kΩ,1/10W
R1157	QRSA08J-391YN	RESISTOR,S7000EG	390Ω,1/10W
R1161	QRSA08J-101YN	RESISTOR,S7000EG	100Ω,1/10W
R1162	QRSA08J-101YN	RESISTOR,S7000EG	100Ω,1/10W
C1	QCYA1HK-222	CAPACITOR	0.0022μF,50V
C2	QEKJ1CM-476	E CAPACITOR	47μF,16V
C3	QEKJ1HM-106	E CAPACITOR	10μF,50V
C4	QETC1HM-105	E CAPACITOR	1μF,50V
C5	QCC11EJ-153	CAPACITOR	0.015μF,25V
C6	QCC11EJ-682	CAPACITOR	0.0068μF,25V
C7	QCC11EJ-153	CAPACITOR	0.015μF,25V
C8	QEKJ1HM-106	E CAPACITOR	10μF,50V
C9	QCYA1EK-104	CAPACITOR,S7000EH	0.1μF,25V
C10	QCYA1EK-104	CAPACITOR	0.1μF,25V
C11	QERF1CM-226	E CAPACITOR	22μF,16V
C12	QCYA1EK-223	CAPACITOR	0.022μF,25V
C13	QCYA1EK-123	CAPACITOR	0.012μF,25V
C14	QERF1CM-226	E CAPACITOR	22μF,16V
C15	QETC1HM-475	E CAPACITOR	4.7μF,50V
C16	QCYA1HK-681	CAPACITOR	680pF,50V
C17	QCYA1HK-103	CAPACITOR	0.01μF,50V
C18	QCYA1HK-332	CAPACITOR	0.0033μF,50V
C19	QFLC1HJ-333Z	F CAPACITOR	0.033μF,50V
C20	QEKJ1HM-106	E CAPACITOR	10μF,50V
C21	QCYA1HK-331	CAPACITOR	330pF,50V
C22	QCYA1HK-103	CAPACITOR	0.01μF,50V
C23	QCYA1HK-332	CAPACITOR	0.0033μF,50V
C24	QFLC1HJ-333Z	F CAPACITOR	0.033μF,50V
C25	QEKJ1HM-106	E CAPACITOR	10μF,50V
C26	QCYA1HK-681	CAPACITOR	680pF,50V
C101	QETC1HM-106	E CAPACITOR	10μF,50V
C102	QETC1HM-106	E CAPACITOR	10μF,50V
C103	QETC1HM-106	E CAPACITOR	10μF,50V
C104	QETC1CM-476	E CAPACITOR	47μF,16V
C105	QCYA1EK-473	CAPACITOR	0.047μF,25V
C106	QETC1HM-106	E CAPACITOR	10μF,50V
C107	QETC1CM-107	E CAPACITOR,S7000EG	100μF,16V
	QETC1HM-107	E CAPACITOR,S7000EH	100μF,50V
C108	QCYA1HK-153	CAPACITOR	0.015μF,50V
C109	QCYA1HK-103	CAPACITOR	0.01μF,50V
C110	QCYA1EK-104	CAPACITOR	0.1μF,25V
C114	QCYA1HK-103	CAPACITOR	0.01μF,50V
C115	QCYA1HK-103	CAPACITOR	0.01μF,50V
C116	QCYA1EK-473	CAPACITOR	0.047μF,25V
C117	QERF1HM-224	E CAPACITOR	0.22μF,50V
C118	QCYA1EK-104	CAPACITOR	0.1μF,25V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C119	QCYA1HK-103	CAPACITOR	0.01μF,50V
C120	QEKJ1CM-107	E CAPACITOR	100μF,16V
C121	QCYA1HK-153	CAPACITOR	0.015μF,50V
C122	QEKJ1CM-107	E CAPACITOR	100μF,16V
C123	QEKJ1HM-106	E CAPACITOR	10μF,50V
C124	QCYA1EK-473	CAPACITOR	0.047μF,25V
C125	QEKC1CM-476	E CAPACITOR	47μF,16V
C126	QETC1HM-106	E CAPACITOR	10μF,50V
C127	QETC1HM-106	E CAPACITOR	10μF,50V
C128	QETC1HM-106	E CAPACITOR	10μF,50V
C129	QETC1HM-106	E CAPACITOR	10μF,50V
C131	QETC1CM-476	E CAPACITOR	47μF,16V
C132	QETC1HM-105	E CAPACITOR	1μF,50V
C133	QETC1CM-476	E CAPACITOR	47μF,16V
C134	PECA0772-476MZ	E CAPACITOR	
C135	PECA0772-476MZ	E CAPACITOR	
C136	QE231CM-107ZE	E CAPACITOR	100μF,16V
C137	QETC1HM-106	E CAPACITOR	10μF,50V
C138	QETC1HM-105	E CAPACITOR	1μF,50V
C139	QETC1HM-105	E CAPACITOR	1μF,50V
C140	QERF1CM-226	E CAPACITOR	22μF,16V
C141	QETC1CM-226	E CAPACITOR	22μF,16V
C143	QETC1HM-106	E CAPACITOR	10μF,50V
C144	QETC1HM-106	E CAPACITOR	10μF,50V
C145	QETC1CM-476	E CAPACITOR	47μF,16V
C146	QETC1CM-476	E CAPACITOR	47μF,16V
C147	QCTA1CH-561	CAPACITOR	560pF,16V
C148	QCTA1CH-561	CAPACITOR	560pF,16V
C149	QETC1HM-106	E CAPACITOR	10μF,50V
C150	QETC1HM-106	E CAPACITOR	10μF,50V
C151	QETC1HM-106	E CAPACITOR	10μF,50V
C152	QETC1HM-106	E CAPACITOR	10μF,50V
C153	QETC1CM-476	E CAPACITOR	47μF,16V
C157	QCTA1CH-561	CAPACITOR	560pF,16V
C158	QCTA1CH-561	CAPACITOR	560pF,16V
C201	QETC1CM-476	E CAPACITOR	47μF,16V
C202	QCYA1HK-103	CAPACITOR	0.01μF,50V
C203	QCTA1CH-470	CAPACITOR	47pF,16V
C204	QCYA1HK-103	CAPACITOR	0.01μF,50V
C205	QCTA1CH-470	CAPACITOR	47pF,16V
C206	QCTA1CH-100	CAPACITOR	10pF,16V
C207	QCTA1CH-330	CAPACITOR	33pF,16V
C209	QETC1CM-476	E CAPACITOR	47μF,16V
C213	QCTA1CH-270	CAPACITOR	27pF,16V
C214	QCYA1EK-104	CAPACITOR	0.1μF,25V
C215	QCTA1CH-390	CAPACITOR	39pF,16V
C216	QCYA1HK-103	CAPACITOR	0.01μF,50V
C217	QCYA1EK-104	CAPACITOR	0.1μF,25V
C219	QCTA1CH-390	CAPACITOR	39pF,16V
C220	QCYA1EK-473	CAPACITOR	0.047μF,25V
C221	QER61CM-476	E CAPACITOR,S7000EG	47μF,16V
	QETC1CM-476	E CAPACITOR,S7000EH	47μF,16V
C222	QCTA1CH-560	CAPACITOR	56pF,16V
C224	QCYA1HK-103	CAPACITOR	0.01μF,50V
C226	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
C228	QCYA1HK-103	CAPACITOR	0.01μF,50V
C229	QCTA1CH-470	CAPACITOR	47pF,16V
C230	QEK61CM-106	E CAPACITOR,S7000EG	10μF,16V
	QETC1HM-106	E CAPACITOR,S7000EH	10μF,50V
C231	QEK61CM-106	E CAPACITOR,S7000EG	10μF,16V
	QETC1HM-106	E CAPACITOR,S7000EH	10μF,50V
C232	QCYA1HK-103	CAPACITOR	0.01μF,50V

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	C233	QCTA1CH-180	CAPACITOR	18pF,16V
	C234	QCTA1CH-151	CAPACITOR	150pF,16V
	C235	QCTA1CH-220	CAPACITOR	22pF,16V
	C236	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C237	QCTA1CH-680	CAPACITOR	68pF,16V
	C238	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C239	QCTA1CH-821	CAPACITOR	820pF,16V
	C240	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C241	QEKJ1CM-476	E CAPACITOR	47µF,16V
	C242	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C243	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C244	QCVB1CN-103	CAPACITOR	0.01µF,16V
	C245	QCVB1CN-103	CAPACITOR	0.01µF,16V
	C246	QCVB1CN-103	CAPACITOR	0.01µF,16V
	C401	QCYA1HK-102	CAPACITOR	0.001µF,50V
	C402	QCYA1HK-102	CAPACITOR	0.001µF,50V
	C403	QCYA1HK-563	CAPACITOR	0.056µF,50V
	C404	QCSA1HJ-101	CAPACITOR,S7000EG	100pF,50V
		QCTA1CH-101	CAPACITOR,S7000EH	100pF,16V
	C405	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C406	QEKF1CM-106	E CAPACITOR,S7000EG	10µF,16V
		QEKJ1CM-106	E CAPACITOR,S7000EH	10µF,16V
	C407	QEKJ1CM-106	E CAPACITOR	10µF,16V
	C408	QEKF0JM-107	E CAPACITOR,S7000EG	100µF,6.3V
		QEKJ0JM-107	E CAPACITOR,S7000EH	100µF,6.3V
	C409	QCYA1EK-223	CAPACITOR	0.022µF,25V
	C411	QCYA1HK-222	CAPACITOR	0.0022µF,50V
	C412	QCYA1EK-104	CAPACITOR	0.1µF,25V
	C413	QCY81CK-105	CAPACITOR	1µF,16V
	C414	QCYA1HK-102	RESISTOR	
	C415	QEKF1CM-106	E CAPACITOR,S7000EG	10µF,16V
		QEKJ1CM-106	E CAPACITOR,S7000EH	10µF,16V
	C416	QCYA1HK-102	CAPACITOR	0.001µF,50V
	C417	QCTA1CH-470	CAPACITOR	47pF,16V
	C451	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C452	QCFA1EZ-104	CAPACITOR	0.1µF,25V
	C453	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C454	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C455	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C456	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C458	QEKF1CM-106	E CAPACITOR,S7000EG	10µF,16V
		QEKJ1CM-106	E CAPACITOR,S7000EH	10µF,16V
	C459	QFV11HJ-104	F CAPACITOR	0.1µF,50V
	C601	QAT3120-450Z	TRIM CAPACITOR,TIMER CLOCK	
	C602	QCTA1CH-180	CAPACITOR	18pF,16V
	C603	QCYA1HJ-103	CAPACITOR	0.01µF,50V
	C604	QEKF1CM-106	E CAPACITOR	10µF,16V
	C609	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C612	QCYA1HJ-102	CAPACITOR	0.001µF,50V
	C613	QCYA1HJ-103	CAPACITOR	0.01µF,50V
	C614	QEKF1AM-336	E CAPACITOR,S7000EG	33µF,10V
		QERF1AM-336	E CAPACITOR,S7000EH	33µF,10V
	C615	QCYA1HJ-103	CAPACITOR	0.01µF,50V
	C618	QETC1AM-107	E CAPACITOR	100µF,10V
	C619	PU60676-223	E CAPACITOR	0.022µF,5.5V
	C627	QCYA1HJ-103	CAPACITOR	0.01µF,50V
	C628	QEKF0JM-107	E CAPACITOR	100µF,6.3V
	C629	QCYA1EK-104	CAPACITOR	0.1µF,25V
	C630	QEKF1CM-106	E CAPACITOR	10µF,16V
	C631	QCYA1HJ-103	CAPACITOR	0.01µF,50V
	C639	QCYA1HK-103	CAPACITOR	0.01µF,50V
	C751	QCSA1HJ-220	CAPACITOR,S7000EG	22pF,50V
		QCTA1CH-220	CAPACITOR,S7000EH	22pF,16V
	C752	QCYA1HK-102	CAPACITOR	0.001µF,50V
	C753	QCYA1EK-104	CAPACITOR	0.1µF,25V
	C754	QCSA1HJ-220	CAPACITOR,S7000EG	22pF,50V
		QCTA1CH-220	CAPACITOR,S7000EH	22pF,16V
	C755	QCSA1HJ-220	CAPACITOR,S7000EG	22pF,50V
		QCTA1CH-220	CAPACITOR,S7000EH	22pF,16V
	C756	QCSA1HJ-220	CAPACITOR,S7000EG	22pF,50V
		QCTA1CH-220	CAPACITOR,S7000EH	22pF,16V
	C758	QCSA1HJ-470	CAPACITOR,S7000EG	47pF,50V
		QCTA1CH-470	CAPACITOR,S7000EH	47pF,16V
	C760	QEKF1HM-335	E CAPACITOR,S7000EG	3.3µF,50V
		QERF1HM-335	E CAPACITOR,S7000EH	3.3µF,50V
	C761	QCSA1HJ-101	CAPACITOR,S7000EG	100pF,50V
		QCTA1CH-101	CAPACITOR,S7000EH	100pF,16V
	C762	QCSA1HJ-101	CAPACITOR,S7000EG	100pF,50V
		QCTA1CH-101	CAPACITOR,S7000EH	100pF,16V
	C763	QCSA1HJ-101	CAPACITOR,S7000EG	100pF,50V
		QCTA1CH-101	CAPACITOR,S7000EH	100pF,16V
⚠	C801	QFZ9051-223	F CAPACITOR	0.022µF
⚠	C802	QFZ9051-683	F CAPACITOR	0.068µF
⚠	C803	QFZ9051-333	F CAPACITOR	0.033µF
	C810	PECA0738-107	E CAPACITOR	
	C863	QETC1AM-107	E CAPACITOR	100µF,10V
	C864	QETC1CM-226	E CAPACITOR	22µF,16V
	C865	QETC1AM-107	E CAPACITOR	100µF,10V
	C866	QETC1HM-106	E CAPACITOR	10µF,50V
	C867	QEKJ1CM-107	E CAPACITOR	100µF,16V
	C868	QETC1CM-476	E CAPACITOR	47µF,16V
	C870	QETC1CM-107	E CAPACITOR	100µF,16V
	C901	QETC1CM-336	E CAPACITOR	33µF,16V
	C902	QCYA1HK-102	CAPACITOR	0.001µF,50V
	C903	QERF1HM-106	E CAPACITOR	10µF,50V
	C904	QCYA1HK-102	CAPACITOR	0.001µF,50V
	C905	QCYA1EK-223	CAPACITOR	0.022µF,25V
	C906	QETC1HM-474	E CAPACITOR	0.47µF,50V
	C907	QFLC1HJ-473Z	F CAPACITOR	0.047µF,50V
	C953	QCYA1HK-102	CAPACITOR	0.001µF,50V
	C959	QETC1CM-476	E CAPACITOR	47µF,16V
	C1008	QFV11HJ-104	F CAPACITOR	0.1µF,50V
	C1009	QFV11HJ-333	F CAPACITOR	0.033µF,50V
	C1010	QCFA1HZ-103	CAPACITOR	0.01µF,50V
	C1012	QCTA1CH-151	CAPACITOR	150pF,16V
	C1015	QERF1HM-104	E CAPACITOR	0.1µF,50V
	C1151	QCYA1HK-103	CAPACITOR,S7000EG	0.01µF,50V
	C1152	QCYA1HK-103	CAPACITOR,S7000EG	0.01µF,50V
	C1153	QCTA1CH-220	CAPACITOR,S7000EG	22pF,16V
	C1154	QCYA1HK-103	CAPACITOR,S7000EG	0.01µF,50V
	C1155	QEKJ1HM-225	E CAPACITOR,S7000EG	2.2µF,50V
	C1156	QEKJ1HM-225	E CAPACITOR,S7000EG	2.2µF,50V
	C1157	QCYA1HK-103	CAPACITOR,S7000EG	0.01µF,50V
	C1158	QCYA1HK-103	CAPACITOR,S7000EG	0.01µF,50V
	C1161	QEKJ1CM-106	E CAPACITOR,S7000EG	10µF,16V
	C1162	QEKJ1CM-106	E CAPACITOR,S7000EG	10µF,16V
	C1163	QETC1CM-226	E CAPACITOR,S7000EG	22µF,16V
	C1176	QCTA1CH-101	CAPACITOR,S7000EG	100pF,16V
	C1177	QCTA1CH-101	CAPACITOR,S7000EG	100pF,16V
	L1	PU58308-123J	COIL	12mH
	L201	PU48530-101K	COIL	100µH
	L202	PU59988-560J	COIL	56µH
	L203	PU48530-102J	COIL	1mH
	L204	PU59988-101J	COIL	100µH

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	L205	PU59988-151JY	COIL	150μH
	L206	PU59988-560J	COIL	56μH
	L208	PU48530-101K	COIL	100μH
	L210	PU48530-222J	COIL	2.2mH
	L211	PU59988-221J	COIL	220μH
	L213	PU48530-101K	COIL	100μH
	L214	PU59988-560J	COIL	56μH
	L215	PU59988-470J	COIL	47μH
	L216	PU59988-101J	COIL	100μH
	L401	PU59988-270J	COIL	27μH
	L451	PU59988-270J	COIL	27μH
	L601	QRD161J-0R0	RESISTOR	0Ω,1/6W
	L602	QRD161J-0R0	RESISTOR	0Ω,1/6W
	L603	PU48530-100J	COIL	10μH
	L604	PU48530-100J	COIL	10μH
	L605	PU48530-100J	COIL	10μH
	L901	PU59152-R22J	COIL	0.22μH
	L902	PU59152-R22J	COIL	0.22μH
⚠	CF601	PEVB0497	RESONATOR	
⚠	CF751	PEVB0340	RESONATOR	
	LC201	PU60714	EQUALIZER	
	CF1104	PU52775-2	CERAMIC FILTER,S7000EG	
	CF1105	PEVB0481	C DISCRIMINATER,S7000EG	
	LC1101	PU48530-1R0J	COIL,S7000EG	1μH
⚠	X601	PEVB0422	CRYSTAL RESONATOR	
⚠	X1102	PEVB0479	CRYSTAL RESONATOR,S7000EG	
	S901	PESW0671	SLIDE SWITCH,RF/TEST S7000EG	
⚠	T1	PELN0860	OSC TRANSFORMER	
⚠	T2	PELN0861	OSC TRANSFORMER	
	PS601	PU61433	REEL SENSOR	
	PS602	PU61433	REEL SENSOR	
	T901	PELN0806	COIL	
	ETH1	PQ21623-1-2	EARTH PLATE(RF),TUNER	
	JA1	PU61150-2	PIN JACK(SW),R AUDIO IN	
	JA2	PU61149-4	PIN JACK,AUDIO OUT	
	JA3	PU60612	MINI JACK,PAUSE/RAE	
	SCW1	SDSF3008Z	SCREW,TERMINAL BOARD L	
	SLD1	PQ21911	SHIELD CASE	
	SPC1	PEME0947-01-01	SPACER,X2	
⚠	FC801	PEMC0965-Z	FUSE CLIP,F801	
⚠	FC802	PEMC0965-Z	FUSE CLIP,F801	
⚠	LF801	PELN0885	LINE FILTER	
⚠	LF802	PELN0876	LINE FILTER	
	CN1	PW30705-12AAYY	WIRE,(1-4)	
	CN2	PW30701-12AAYY	WIRE,(1-2)	
	CN101	PEMC1102-010	CONNECTOR,(1-10)SW/JACK	
	CN102	PEMC0969-112	CONNECTOR,(1-12)TERMINAL	
	CN103	PEMC1055-014	CONNECTOR,(1-14)PRE/REC	
	CN201	PEMC1055-014	CONNECTOR,(1-14)PRE/REC	
	CN204	PEMC0846-010	CONNECTOR,(2-11)DIGITAL SUB EG	
		PEMC0846-012	CONNECTOR,(1-12)DIGITAL SUB EH	
	CN205	PEMC0846-010	CONNECTOR,(4-13)DIGITAL SUB EG	
		PEMC0846-014	CONNECTOR,(1-14)DIGITAL SUB EH	
	CN206	PEMC0969-112	CONNECTOR,(1-12)TERMINAL	
	CN207	PEMC0969-111	CONNECTOR,(1-11)TERMINAL	
	CN301	PU59555-4	CONNECTOR,(1-4)EVR	
	CN401	PW30702-12AAYY	WIRE,(1-3)	
	CN402	PEMC1102-004	CONNECTOR,(1-4)DRUM MOTOR	
	CN601	PEMC1077	CONNECTOR,(1-8)CAP MDA	
	CN602	PU61434-1-1	CONNECTOR,(1-5)ROTARY ENCODER	
	CN603	PU60727-2	CONNECTOR,(1-2)LOADING MOTOR	
	CN605	PU59555-7	CONNECTOR,(1-7)JOG	

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	CN702	PEMC1102-015	CONNECTOR,(1-15)DISPLAY/SW	
⚠	CN801	PU60250-2	CONNECTOR,(1-2)AC IN	
⚠	CP401	ICP-N15	CIRCUIT PROTECTOR	
⚠	CP601	ICP-N25	CIRCUIT PROTECTOR	
⚠	CP602	ICP-N25	CIRCUIT PROTECTOR	
⚠	CP801	ICP-N15	CIRCUIT PROTECTOR	
⚠	F801	QMF51E2-1R25J1	FUSE	T1.2

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VIDEO UNIT BOARD ASSEMBLY <05>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	PWBA	PB10966E	VIDEO UNIT BOARD ASSEMBLY	
	IC1	JCP0054	IC	
	IC2	M62353GP	IC	
	IC3	NJM431U-XE	IC	
	IC4	VC2076MP-XE	IC	
	IC5	HA118092FP-XE	IC	
	IC6	93LC56/P	IC	
		or 93LC56B/P	IC	
	IC7	TC4S81F	IC	
	Q1	2SA1576(QRS)	TRANSISTOR	
	Q2	DTC144WU	TRANSISTOR	
	Q5	2SC4081(QRS)	TRANSISTOR	
	Q6	2SA1576(QRS)	TRANSISTOR	
	Q7	DTA144EU	TRANSISTOR	
	Q8	DTC144WU	TRANSISTOR	
	Q9	DTC144WU	TRANSISTOR	
	Q11	DTC144WU	TRANSISTOR	
	Q12	DTC144WU	TRANSISTOR	
	Q16	DTC144WS	TRANSISTOR	
	D1	DAP202U	DIODE	
	D3	1SS355	DIODE	
	R1	NRSA63J-103N	RESISTOR	10kΩ,1/16W
	R2	NRSA63J-102N	RESISTOR	1kΩ,1/16W
	R3	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
	R5	NRSA63J-182N	RESISTOR	1.8kΩ,1/16W
	R6	NRSA63J-472N	RESISTOR	4.7kΩ,1/16W
	R7	QRD162J-222	RESISTOR	2.2kΩ,1/6W
	R8	NRSA63J-333N	RESISTOR	33kΩ,1/16W
	R9	NRVA63D-822N	MF RESISTOR	8.2kΩ,1/16W
	R10	NRVA63D-152N	MF RESESTOR	
	R11	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
	R12	NRSA63J-561N	RESISTOR	560Ω,1/16W
	R13	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
	R14	NRSA63J-821N	RESISTOR	820Ω,1/16W
	R17	NRSA63J-391N	RESISTOR	390Ω,1/16W
	R18	NRVA63D-391N	RESISTOR	390Ω,1/16W
	R19	NRVA63D-102N	MF RESISTOR	1kΩ,1/16W
	R20	NRVA63D-391N	RESISTOR	390Ω,1/16W
	R22	NRSA63J-102N	RESISTOR	1kΩ,1/16W
	R23	NRSA63J-102N	RESISTOR	1kΩ,1/16W
	R24	NRSA63J-332N	RESISTOR	3.3kΩ,1/16W
	R25	NRSA63J-332N	RESISTOR	3.3kΩ,1/16W
	R26	NRSA63J-151N	RESISTOR	150Ω,1/16W
	R27	NRSA63J-162N	RESISTOR	1.6kΩ,1/16W
	R28	NRSA63J-391N	RESISTOR	390Ω,1/16W
	R29	NRSA63J-122N	RESISTOR	1.2kΩ,1/16W
	R30	NRVA63D-102N	MF RESISTOR	1kΩ,1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R31	NRVA63D-471N	RESISTOR	470Ω,1/16W
R32	NRVA63D-102N	MF RESISTOR	1kΩ,1/16W
R33	NRVA63D-152N	MF RESESTOR	
R34	NRVA63D-332N	MF RESISTOR	3.3kΩ,1/16W
R35	NRVA63D-332N	MF RESISTOR	3.3kΩ,1/16W
R37	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R39	NRSA63J-103N	RESISTOR	10kΩ,1/16W
R40	NRSA63J-103N	RESISTOR	10kΩ,1/16W
R41	NRSA63J-823N	RESISTOR	82kΩ,1/16W
R43	NRSA63J-273N	RESISTOR	27kΩ,1/16W
R45	NRSA63J-181N	RESISTOR	180Ω,1/16W
R46	NRSA63J-101N	RESISTOR	100Ω,1/16W
R47	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R48	NRVA63D-243N	RESISTOR	24kΩ,1/16W
R49	NRSA63J-101N	RESISTOR	100Ω,1/16W
R50	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R51	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R52	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R53	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R54	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R55	NRVA63D-272N	MF RESISTOR	2.7kΩ,1/16W
R56	NRVA63D-682N	MF RESISTOR	6.8kΩ,1/16W
R57	NRVA63D-162N	MF RESISTOR	1.6kΩ,1/16W
R58	NRVA63D-682N	MF RESISTOR	6.8kΩ,1/16W
R59	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R60	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R61	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R62	NRSA63J-221N	RESISTOR	220Ω,1/16W
R63	NRSA63J-103N	RESISTOR	10kΩ,1/16W
R64	NRSA63J-475N	RESISTOR	4.7MΩ,1/16W
R65	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R68	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R69	NRSA63J-101N	RESISTOR	100Ω,1/16W
R70	NRSA63J-272N	RESISTOR	2.7kΩ,1/16W
R73	NRSA63J-684N	RESISTOR	680kΩ,1/16W
R74	NRSA63J-103N	RESISTOR	10kΩ,1/16W
R75	NRSA63J-101N	RESISTOR	100Ω,1/16W
R79	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
R82	NRSA63J-103N	RESISTOR	10kΩ,1/16W
R83	NRSA63J-103N	RESISTOR	10kΩ,1/16W
R85	NRSA63J-472N	RESISTOR	4.7kΩ,1/16W
R87	QRD161J-182	RESISTOR	1.8kΩ,1/6W
C1	QETC1HM-224	E CAPACITOR	0.22μF,50V
C2	NCB31EK-103A	CAPACITOR	0.01μF,25V
C5	QETC1HM-105	E CAPACITOR	1μF,50V
C7	QETC1HM-104	E CAPACITOR	0.1μF,50V
C8	NCT08CH-330A	CAPACITOR	33pF,50V
C10	NCB31CK-104A	CAPACITOR	0.1μF,16V
C11	NCB31EK-103A	CAPACITOR	0.01μF,25V
C12	QETC1HM-106	E CAPACITOR	10μF,50V
C13	QETC1HM-225	E CAPACITOR	2.2μF,50V
C14	NCB31CK-104A	CAPACITOR	0.1μF,16V
C15	QETA1HM-475	E CAPACITOR	4.7μF,50V
C16	NCB31EK-123A	CAPACITOR	0.012μF,25V
C17	QCYA1EK-563	CAPACITOR	0.056μF,25V
C18	QETC1HM-105	E CAPACITOR	1μF,50V
C19	QETC1CM-476	E CAPACITOR	47μF,16V
C20	NCB31EK-103A	CAPACITOR	0.01μF,25V
C21	NCB31EK-103A	CAPACITOR	0.01μF,25V
C22	NCT08CH-331A	CAPACITOR	330pF,50V
C23	QCYA1EK-104	CAPACITOR	0.1μF,25V
C24	QETC1HM-334	E CAPACITOR	0.33μF,50V
C25	NCB31EK-103A	CAPACITOR	0.01μF,25V
C26	NCB31EK-103A	CAPACITOR	0.01μF,25V
C27	NCB31EK-103A	CAPACITOR	0.01μF,25V
C28	NCB31EK-103A	CAPACITOR	0.01μF,25V
C29	QETC1CM-476	E CAPACITOR	47μF,16V
C30	NCB31EK-103A	CAPACITOR	0.01μF,25V
C31	NCT08CH-161A	CAPACITOR	160pF,50V
C32	NCS31HJ-120A	CAPACITOR	12pF,50V
C33	QETC1HM-104	E CAPACITOR	0.1μF,50V
C35	NCB31EK-103A	CAPACITOR	0.01μF,25V
C36	NCB31EK-103A	CAPACITOR	0.01μF,25V
C37	QETC1HM-474	E CAPACITOR	0.47μF,50V
C38	QETC1HM-104	E CAPACITOR	0.1μF,50V
C39	QETC1HM-474	E CAPACITOR	0.47μF,50V
C40	NCB31EK-103A	CAPACITOR	0.01μF,25V
C41	QETC1HM-106	E CAPACITOR	10μF,50V
C42	QETC1HM-106	E CAPACITOR	10μF,50V
C43	QCC31CK-473	CAPACITOR	0.047μF,16V
C44	NCB31EK-103A	CAPACITOR	0.01μF,25V
C45	QETC1CM-226	E CAPACITOR	22μF,16V
C46	NCS31HJ-470A	CAPACITOR	47pF,50V
C47	QETC1HM-225	E CAPACITOR	2.2μF,50V
C48	QETC1CM-226	E CAPACITOR	22μF,16V
C49	QETC1HM-225	E CAPACITOR	2.2μF,50V
C50	NCB31CK-104A	CAPACITOR	0.1μF,16V
C51	NCB31EK-103A	CAPACITOR	0.01μF,25V
C52	NCB31EK-103A	CAPACITOR	0.01μF,25V
C53	QETC1CM-476	E CAPACITOR	47μF,16V
C54	NCT06CH-101A	CAPACITOR	100pF,50V
C55	NCT06CH-101A	CAPACITOR	100pF,50V
C56	QETC1HM-475	E CAPACITOR	4.7μF,50V
C57	NCT08CH-301A	CAPACITOR	300pF,50V
C58	NCT08CH-301A	CAPACITOR	300pF,50V
C59	NCT06CH-181A	CAPACITOR	180pF,50V
C60	NCT06CH-101A	CAPACITOR	100pF,50V
C61	NCT08CH-271A	CAPACITOR	270pF,50V
C62	NCT08CH-820A	CAPACITOR	82pF,50V
C63	NCT08CH-221A	CAPACITOR	220pF,50V
C64	NCT08CH-301A	CAPACITOR	300pF,50V
C65	NCT08CH-301A	CAPACITOR	300pF,50V
C66	NCB31EK-103A	CAPACITOR	0.01μF,25V
C67	QETC1CM-476	E CAPACITOR	47μF,16V
C69	NCB31EK-103A	CAPACITOR	0.01μF,25V
C70	QETC1HM-225	E CAPACITOR	2.2μF,50V
C71	QETC1HM-225	E CAPACITOR	2.2μF,50V
C72	NCT08CH-331A	CAPACITOR	330pF,50V
C73	NCB31EK-103A	CAPACITOR	0.01μF,25V
C74	NCB31EK-103A	CAPACITOR	0.01μF,25V
C75	QETC1CM-476	E CAPACITOR	47μF,16V
C76	NCB31EK-223A	CAPACITOR	0.022μF,25V
C77	NCB31EK-103A	CAPACITOR	0.01μF,25V
C78	QETC1HM-105	E CAPACITOR	1μF,50V
C79	QETC1HM-106	E CAPACITOR	10μF,50V
C80	NCB31EK-103A	CAPACITOR	0.01μF,25V
C81	NCB31EK-103A	CAPACITOR	0.01μF,25V
C83	NCT08CH-5R0A	CAPACITOR	5pF,50V
C84	NCB31EK-103A	CAPACITOR	0.01μF,25V
C85	NCB31EK-103A	CAPACITOR	0.01μF,25V
C86	NCB31EK-103A	CAPACITOR	0.01μF,25V
C87	NCB31EK-103A	CAPACITOR	0.01μF,25V
C88	NCB31EK-103A	CAPACITOR	0.01μF,25V
C89	NCB31EK-103A	CAPACITOR	0.01μF,25V

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	C92	NCT06CH-101A	CAPACITOR	100pF,50V
	C99	NCB31EK-103A	CAPACITOR	0.01μF,25V
	C102	NCB31EK-103A	CAPACITOR	0.01μF,25V
	C104	QETC1HM-224	E CAPACITOR	0.22μF,50V
	C106	NCT08CH-121A	CAPACITOR	120pF,50V
	L1	PU59153-822J	COIL	8.2mH
	L2	PU48530-271K	COIL	270μH
	L4	PU48530-331K	COIL	330μH
	L5	PU48530-100J	COIL	10μH
	L6	PU48530-270J	COIL	27μH
	L7	PU48530-101K	COIL	100μH
	L8	PU48530-101K	COIL	100μH
	L9	PU48530-101K	COIL	100μH
	LC1	PELN1165	LC TRA,LC VCO	
	LC3	PELN1149	EQUALIZER	
	LC4	PELN1171	LC TRAP	
⚠	X1	PEVB0550-Z	CRYSTAL RESONATOR	
	K1	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
	CN1	PEMC0919-130K	PIN HEADER	
	CN2	PEMC0919-130K	PIN HEADER	

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TERMINAL BOARD ASSEMBLY <06>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	PWBA	PB10954C-01	TERM BOARD ASSY,S7000EH	
		PB10954A-01	TERM BOARD ASSY,S7000EG	
	IC1	CXA1410M-XE	IC	
	IC3	NJM2234D	IC	
	IC5	MM1228XF	IC	
	IC6	TC7W02F	IC	
	Q1	DTC144WU	TRANSISTOR	
	Q2	2SA1577(QR)	TRANSISTOR	
	Q3	2SA1577(QR)	TRANSISTOR	
	Q4	2SA1577(QR)	TRANSISTOR	
	Q5	2SA1577(QR)	TRANSISTOR	
	Q6	2SC4097(QR)	TRANSISTOR	
	D5	DAN202U	DIODE	
	D7	1N4148M	DIODE	
		or MA165	DIODE	
		or 1SS133	DIODE	
	D8	1N4148M	DIODE	
		or 1SS133	DIODE	
		or MA165	DIODE	
	R1	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R11	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
	R12	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
	R13	QRD161J-471	RESISTOR	470Ω,1/6W
	R14	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
	R15	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
	R16	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R21	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R22	QRSA08J-563YN	RESISTOR	56kΩ,1/10W
	R23	QRSA08J-391YN	RESISTOR	390Ω,1/10W
	R24	QRD123J-391SX	RESISTOR	390Ω,1/2W
	R25	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
	R31	QRD161J-101	RESISTOR	100Ω,1/6W
	R32	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
	R33	QRD123J-391SX	RESISTOR	390Ω,1/2W
	R35	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
	R36	QRD123J-391SX	RESISTOR	390Ω,1/2W
	R37	QRSA08J-101YN	RESISTOR	100Ω,1/10W
	R39	QRD123J-391SX	RESISTOR	390Ω,1/2W
	R40	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R41	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R43	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R44	NRVA62D-750N	RESISTOR	75Ω,1/16W
	R46	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
	R52	QRSA08J-622YN	RESISTOR	6.2kΩ,1/10W
	R53	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
	R61	QRD161J-750	RESISTOR	75Ω,1/6W
	R62	QRSA08J-152YN	RESISTOR,S7000EH	1.5kΩ,1/10W
		QRD161J-152	RESISTOR,S7000EG	1.5kΩ,1/6W
	R63	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R64	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R66	QRSA08J-750YN	RESISTOR	75Ω,1/10W
	R67	QRSA08J-221YN	RESISTOR	220Ω,1/10W
	R68	QRSA08J-221YN	RESISTOR	220Ω,1/10W
	R69	QRSA08J-221YN	RESISTOR	220Ω,1/10W
	R70	QRSA08J-221YN	RESISTOR	220Ω,1/10W
	R72	QRD161J-105	RESISTOR	1MΩ,1/6W
	C1	QEKC1CM-106	E CAPACITOR	10μF,16V
	C2	QEP61HM-105	NP E CAPACITOR	1μF,50V
	C4	QEKC1CM-106	E CAPACITOR	10μF,16V
	C5	QEP61CM-106	NP E CAPACITOR	10μF,16V
	C6	QEKC0JM-476	E CAPACITOR	47μF,6.3V
	C7	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C8	QEKC1CM-106	E CAPACITOR	10μF,16V
	C9	QEKC1CM-106	E CAPACITOR	10μF,16V
	C10	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C11	QEKC1CM-106	E CAPACITOR	10μF,16V
	C14	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C15	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C16	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C17	QEKC1CM-476	E CAPACITOR	47μF,16V
	C18	QEKC0JM-476	E CAPACITOR	47μF,6.3V
	C19	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C20	QEKC1AM-476	E CAPACITOR	47μF,10V
	C21	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C22	QEKC1HM-105	E CAPACITOR	1μF,50V
	C23	QEP61HM-105	NP E CAPACITOR	1μF,50V
	C27	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C31	QEKC1CM-476	E CAPACITOR	47μF,16V
	C32	QEKC1HM-225	E CAPACITOR	2.2μF,50V
	C34	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C35	PECA0783-108MZ	E CAPACITOR	
	C36	PECA0783-108MZ	E CAPACITOR	
	C37	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C39	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C40	QEKC1CM-476	E CAPACITOR	47μF,16V
	C45	QETA0JM-477	E CAPACITOR	470μF,6.3V
	C50	QCTA1CH-101	CAPACITOR	100pF,16V
	C52	QETA0JM-477	E CAPACITOR	470μF,6.3V
	L1	PU48530-101K	COIL	100μH
	L2	PU48530-101K	COIL	100μH
	L3	PU48530-101K	COIL	100μH
	L5	PU48530-101K	COIL	100μH
	LC1	PU59885-102	N FILTER	
	LC2	PU59885-102	N FILTER	
	LC3	PU59885-102	N FILTER	
	LC4	PU59885-102	N FILTER	

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION
LC5	PU59885-102	N FILTER
LC6	PU59885-102	N FILTER
LC7	PU59885-102	N FILTER
LC8	PU59885-102	N FILTER
S1	PU58486-1-1	SLIDE SWITCH,AV1 OUT SEL
S2	PU58486-1-1	SLIDE SWITCH,AV2 SEL
JA1	PU59592	RGB21P SOCKET,AV1
JA2	PU59592	RGB21P SOCKET,AV2/DEC
JA3	PEMC0963	S JACK,S IN
JA4	PEMC0963	S JACK,S OUT
SCW1	SDSF3008Z	SCREW,X9 TERMINAL BOARD ASSY
TB1	PQ35456A	TERMINAL BOARD ASSEMBLY
CN1	PEMC0970-212	CONNECTOR,(1-12)MAIN VIDEO
CN2	PEMC0970-211	CONNECTOR,(1-11)MAIN VIDEO
CN3	PEMC0970-212	CONNECTOR,(1-12)MAIN AUDIO

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A/C HEAD BOARD <12>

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION
PWBA	PB40068A	A/CTL HEAD BOARD ASSEMBLY
CN1	PU60910-107	CONNECTOR,(1-7)MAIN

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DEMOD BOARD ASSEMBLY(S7000EH) <14>

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
PWBA	PB10832F-01	DEMOD BOARD ASSEMBLY	
IC1	CF70088A	IC	
IC2	TDA1305T-XE	IC	
IC3	LA7151	IC	
IC4	UPC1391H	IC	
IC5	TDA8415	IC	
	or TDA8416	IC	
Q1	IMX3	TRANSISTOR	
Q3	2SC4081(RS)	TRANSISTOR	
Q4	3SK181(5)	FE TRANSISTOR	
Q5	2SC4081(RS)	TRANSISTOR	
Q6	IMX3	TRANSISTOR	
Q7	DTC144EU	TRANSISTOR	
Q8	DTA114EU	TRANSISTOR	
D1	DAN202U	DIODE	
D2	DAN202U	DIODE	
R1	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R2	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R3	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R4	QRSA08J-121YN	RESISTOR	120Ω,1/10W
R5	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R6	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R10	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R11	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R12	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R13	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R14	QRSA08J-224YN	RESISTOR	220kΩ,1/10W
R15	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R16	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R17	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R18	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R19	QRSA08J-303YN	RESISTOR	30kΩ,1/10W
R20	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R21	QRSA08J-154YN	RESISTOR	150kΩ,1/10W
R22	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R23	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R26	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R27	QRSA08J-391YN	RESISTOR	390Ω,1/10W
R28	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R31	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R32	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
R33	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R34	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R35	QRSA08J-912YN	RESISTOR	9.1kΩ,1/10W
R36	QRSA08J-912YN	RESISTOR	9.1kΩ,1/10W
R41	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R42	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R43	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R44	QRSA08J-391YN	RESISTOR	390Ω,1/10W
R45	QVZ3521-103Z	V RESISTOR,SEPARATION	
R47	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R48	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R49	QRSA08J-132YN	RESISTOR	1.3kΩ,1/10W
R50	QRSA08J-132YN	RESISTOR	1.3kΩ,1/10W
R51	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R52	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R53	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R54	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R55	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R56	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R57	QRSA08J-391YN	RESISTOR	390Ω,1/10W
R61	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R62	QRSA08J-101YN	RESISTOR	100Ω,1/10W
C1	QCYA1HK-103	CAPACITOR	0.01μF,50V
C2	QCYA1HK-103	CAPACITOR	0.01μF,50V
C5	QCYA1HK-103	CAPACITOR	0.01μF,50V
C6	QCYA1HK-103	CAPACITOR	0.01μF,50V
C7	QCYA1HK-103	CAPACITOR	0.01μF,50V
C8	QCYA1HK-103	CAPACITOR	0.01μF,50V
C9	QCYA1HK-103	CAPACITOR	0.01μF,50V
C10	QCYA1HK-103	CAPACITOR	0.01μF,50V
C11	QCYA1HK-103	CAPACITOR	0.01μF,50V
C12	QCYA1HK-103	CAPACITOR	0.01μF,50V
C16	QCYA1HK-103	CAPACITOR	0.01μF,50V
C17	QCYA1HK-103	CAPACITOR	0.01μF,50V
C18	QCYA1HK-103	CAPACITOR	0.01μF,50V
C19	QCYA1HK-103	CAPACITOR	0.01μF,50V
C20	QCTA1CH-330	CAPACITOR	33pF,16V
C21	QCSA1HJ-102	CAPACITOR	0.001μF,50V
C22	QCSA1HJ-471	CAPACITOR	470pF,50V
C23	QEKF1CM-106	E CAPACITOR	10μF,16V
C24	QCYA1HK-103	CAPACITOR	0.01μF,50V
C25	QCYA1HK-103	CAPACITOR	0.01μF,50V
C26	QEKF0JM-476	E CAPACITOR	47μF,6.3V
C27	QCYA1HK-103	CAPACITOR	0.01μF,50V
C28	QCYA1HK-103	CAPACITOR	0.01μF,50V
C29	QEK40JM-476	E CAPACITOR	47μF,6.3V
C30	QEKF1HM-225	E CAPACITOR	2.2μF,50V
C31	QCSA1HJ-102	CAPACITOR	0.001μF,50V
C32	QCSA1HJ-102	CAPACITOR	0.001μF,50V
C33	QCYA1HK-103	CAPACITOR	0.01μF,50V

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	C34	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C35	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C36	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C37	QEKF0JM-476	E CAPACITOR	47μF,6.3V
	C39	QFLA1HJ-823Z	F CAPACITOR	0.082μF,50V
	C40	QFLA1HJ-823Z	F CAPACITOR	0.082μF,50V
	C41	QEKF1CM-106	E CAPACITOR	10μF,16V
	C42	QEKF1CM-106	E CAPACITOR	10μF,16V
	C43	QEKF1CM-106	E CAPACITOR	10μF,16V
	C44	QEKF1CM-106	E CAPACITOR	10μF,16V
	C45	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C51	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C52	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C53	QCSA1HJ-220	CAPACITOR	22pF,50V
	C54	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C55	QEKF1HM-225	E CAPACITOR	2.2μF,50V
	C56	QEKF1HM-225	E CAPACITOR	2.2μF,50V
	C57	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C58	QCYA1HK-103	CAPACITOR	0.01μF,50V
	C61	QEKF1CM-106	E CAPACITOR	10μF,16V
	C62	QEKF1CM-106	E CAPACITOR	10μF,16V
	C63	QEKF1CM-226	E CAPACITOR	22μF,16V
	C64	QEKF1CM-106	E CAPACITOR	10μF,16V
	C71	QCSA1HJ-330	CAPACITOR	33pF,50V
	C72	QCSA1HJ-330	CAPACITOR	33pF,50V
	C73	QCSA1HJ-101	CAPACITOR	100pF,50V
	C74	QCSA1HJ-101	CAPACITOR	100pF,50V
	C75	QCSA1HJ-101	CAPACITOR	100pF,50V
	C76	QCSA1HJ-101	CAPACITOR	100pF,50V
	C77	QCSA1HJ-101	CAPACITOR	100pF,50V
	L2	PU59152-220J	COIL	22μH
	CF2	PEVB0556-02	C TRAP	
	CF4	PU52775-2	CERAMIC FILTER	
	CF5	PEVB0481	C DISCRIMINATER	
	LC1	PU59736-102	N FILTER	
	LC2	PU59736-102	N FILTER	
⚠	X1	PEVB0573	CRYSTAL RESONATOR	
⚠	X2	PEVB0479	CRYSTAL RESONATOR	
	JP1	PEMC0778-109	PIN HEADER	
	JP2	PEMC0778-105	PIN HEADER	
	SLD1	PQ35058	SHIELD COVER,X2	
	SLD2	PQ35057	SHIELD FRAME	

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DISPLAY/SW BOARD ASSEMBLY <28>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	PWBA1	PB10972C1	DISPLAY BOARD ASSY,S7000EH	
		PB10972A1-02	DISPLAY BOARD ASSY,S7000EG	
	IC1	UPD16311GC(K)	IC	
		or UPD16311GC(E)	IC	
		or UPD16311GC(P)	IC	
	IC2	GP1U581X	IR DETECT UNIT	
		or HC-377J	IR DETECT UNIT	
	Q1	DTA144ES	TRANSISTOR	
	Q2	DTA144ES	TRANSISTOR	
	D1	1SS132Y	DIODE	
		or 1N4148M	DIODE	
	D2	1SS132Y	DIODE	
		or 1N4148M	DIODE	
	D3	1SS132Y	DIODE	
		or 1N4148M	DIODE	
	D4	1SS132Y	DIODE	
		or 1N4148M	DIODE	
	D6	1SS132Y	DIODE	
		or 1N4148M	DIODE	
	D7	1SS132Y	DIODE,A DUB	
		or 1N4148M	DIODE	
	D8	SLR-342MG3F	LE DIODE,16:9 REC	
	D10	SLR-342DU3F	LE DIODE,RAE	
	D11	RD4.7ES-T1B2	ZENER DIODE	
	D12	1SS132Y	DIODE	
		or 1N4148M	DIODE	
	D13	PESC0974	LE DIODE,LIGHT OP	
	D22	SLR-342MG3F	LE DIODE,S-VHS	
	D23	1SS132Y	DIODE,VIDEO DISP	
		or 1N4148M	DIODE	
	D31	11ES2	DIODE	
	D32	1SS133	DIODE	
		or MA165	DIODE	
		or 1N4148M	DIODE	
	D33	1SS133	DIODE	
		or 1N4148M	DIODE	
		or MA165	DIODE	
	D34	1SS133	DIODE	
		or MA165	DIODE	
		or 1N4148M	DIODE	
	R1	QRD161J-333	RESISTOR	33kΩ,1/6W
	R2	QRD161J-333	RESISTOR	33kΩ,1/6W
	R3	QRD161J-333	RESISTOR	33kΩ,1/6W
	R4	QRD161J-333	RESISTOR	33kΩ,1/6W
	R5	QRD161J-472	RESISTOR	4.7kΩ,1/6W
	R6	QRD161J-472	RESISTOR	4.7kΩ,1/6W
	R7	QRD161J-102	RESISTOR	1kΩ,1/6W
	R8	QRD161J-563	RESISTOR	56kΩ,1/6W
	R9	QRD161J-103	RESISTOR	10kΩ,1/6W
	R10	QRD161J-103	RESISTOR	10kΩ,1/6W
	R11	QRD161J-331	RESISTOR	330Ω,1/6W
	R12	QRD161J-331	RESISTOR	330Ω,1/6W
	R13	QRD161J-333	RESISTOR,S7000EH	33kΩ,1/6W
	R15	QRD161J-103	RESISTOR	10kΩ,1/6W
	R16	QRD161J-472	RESISTOR	4.7kΩ,1/6W
	R17	QRD161J-151	RESISTOR	150Ω,1/6W
	R19	QRD161J-103	RESISTOR	10kΩ,1/6W
	R21	QRD161J-331	RESISTOR	330Ω,1/6W
	R22	QRD161J-331	RESISTOR	330Ω,1/6W
	R30	QRD161J-331	RESISTOR	330Ω,1/6W
	RA1	QRB045J-333F	RESISTOR ARRAY	33kΩ,4W
	C1	QERF0JM-476	E CAPACITOR	47μF,6.3V
	C2	QCFB1HZ-104	CAPACITOR	0.1μF,50V
	C3	QERF1HM-106	E CAPACITOR	10μF,50V
	C4	QCSB1HJ-330	CAPACITOR	33pF,50V
	C5	QCSB1HJ-330	CAPACITOR	33pF,50V
	C6	QERF0JM-227	E CAPACITOR	220μF,6.3V
	C7	QCVB1CN-103	CAPACITOR	0.01μF,16V
	C10	QCFB1HZ-473	CAPACITOR	0.047μF,50V
	C11	QCFB1HZ-473	CAPACITOR	0.047μF,50V
	C20	QCBB1HJ-102	CAPACITOR	0.001μF,50V
	L1	PU48530-101J	COIL	100μH
	S5	PESW0525-02Z	TACT SWITCH,PAUSE	

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION
S6	PESW0525-02Z	TACT SWITCH,REC/OTR
S7	PESW0525-02Z	TACT SWITCH,PLAY
S8	PESW0525-02Z	TACT SWITCH,STOP/EJECT
S25	PESW0525-02Z	TACT SWITCH,INSERT
S27	PESW0525-02Z	TACT SWITCH,A DUB
FDP1	PEDP0106-03	FLUORESCENT DISPLAY PANEL
CL1	PU56729-2	WIRE CLAMP,J3
HD1	PQ34668	FDP HOLDER(L)
HD2	PQ34669	FDP HOLDER(R)
HD3	PQM30038-6	LED HOLDER,D8
HD4	PQM30038-6	LED HOLDER,D10
HD5	PQ46516	LED HOLDER,D13
HD6	PQM30038-6	LED HOLDER,D22
J1	PW30101-60AA442	PARALLEL WIRE
J2	PW30101-60AA443	PARALLEL WIRE
J3	PW30219-0661824	WIRE
CN1	PEMC1102-115	CONNECTOR,(1-15)MAIN
CN2	PEMC0889-015	CONNECTOR,(1-15)SW/JACK

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REC SAFETY BOARD ASSEMBLY <32>

PWBA4	PB10972A4	REC SAFETY BOARD ASSEMBLY
S41	PESW0589	PUSH SWITCH,REC SAFETY

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CASSETTE SW BOARD ASSEMBLY <33>

PWBA3	PB10972A3	CASSETTE SWITCH BOARD ASSEMBL
S42	PU61320	PUSH SWITCH,CASS
S43	PU61320	PUSH SWITCH,S CASS

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SWITCH/JACK BOARD ASSEMBLY <36>

PWBA2	PB10972C2	SWITCH JACK BOARD ASSY,S7000EH	
	PB10972A2-02	SWITCH JACK BOARD ASSY,S7000EG	
Q3	DTA144ES	TRANSISTOR	
Q4	DTA144ES	TRANSISTOR	
D14	PESC0974	LE DIODE,LIGIT OP	
D15	SLR-342MC3F	LE DIODE,D CONTRAST	
D16	SLR-342DC3F	LE DIODE,REVIEW	
D17	SLR-342VC3F	LE DIODE,OPERATE	
D20	1N4148M	DIODE	
	or 1SS132Y	DIODE	
D21	1N4148M	DIODE	
	or 1SS132Y	DIODE	
D101	1N4148M	DIODE	
	or MA165	DIODE	
	or 1SS133	DIODE	
D102	1N4148M	DIODE	
	or 1SS133	DIODE	
	or MA165	DIODE	
R14	QRD161J-331	RESISTOR	330Ω,1/6W
R18	QRD161J-331	RESISTOR	330Ω,1/6W
R20	QRD161J-331	RESISTOR	330Ω,1/6W
R23	QRD161J-331	RESISTOR	330Ω,1/6W
R24	QRD161J-331	RESISTOR	330Ω,1/6W
R101	QRD161J-750	RESISTOR	75Ω,1/6W
S1	PESW0575	SLIDE SWITCH,16:9 REC	
S2	PESW0574	SLIDE SWITCH,IMAGE CTL	
S3	PESW0525-02Z	TACT SWITCH,OPERATE	
S4	PESW0525-02Z	TACT SWITCH,TIMER	
S12	PESW0525-02Z	TACT SWITCH,DIMMER	
S15	PESW0525-02Z	TACT SWITCH,STORE	
S16	PESW0525-02Z	TACT SWITCH,CH SEARCH	
S17	PESW0525-02Z	TACT SWITCH,D CONTRAST	
S18	PESW0525-02Z	TACT SWITCH,AV/S SEL	
S19	PESW0525-02Z	TACT SWITCH,S-VHS	
S20	PESW0525-02Z	TACT SWITCH,P/M	
S21	PESW0525-02Z	TACT SWITCH,S FINDER	
S23	PESW0525-02Z	TACT SWITCH,H/N/M	
S24	PESW0525-02Z	TACT SWITCH,REVIEW	
HD1	PQ46516	LED HOLDER,D14	
HD2	PQM30038-2-2	LED HOLDER,D15	
HD3	PQM30038-2-2	LED HOLDER,D16	
HD4	PQM30038-6	LED HOLDER,D17	
JA101	PEMC1076	PIN JACK(SW),VIDEO IN	
JA102	PEMC1076	PIN JACK(SW),AUDIO IN L	
JA103	PEMC1076	PIN JACK(SW),AUDIO IN R	
CN3	PEMC0825-015	CONNECTOR,(1-15)DISPLAY	
CN4	PEMC1102-110	CONNECTOR,(1-10)MAIN	

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PRE/REC BOARD ASSEMBLY <43>

PWBA	PB10965E-01	PRE/REC BOARD ASSEMBLY
IC1	JCP0047-WE	IC
IC201	AN3380NK	IC
Q1	2SC4081(QRS)	TRANSISTOR
Q2	2SA1576(QR)	TRANSISTOR
Q3	2SC4081(QRS)	TRANSISTOR
Q4	2SC4081(QRS)	TRANSISTOR
Q5	2SA1576(QR)	TRANSISTOR
Q6	2SA1576(QR)	TRANSISTOR
Q7	2SC4081(QRS)	TRANSISTOR
Q8	2SC4081(QRS)	TRANSISTOR
Q9	2SC4081(QRS)	TRANSISTOR
Q10	DTA144EU	TRANSISTOR
Q11	DTC144WU	TRANSISTOR
Q18	DTC143EU	TRANSISTOR
Q19	2SC4081(QRS)	TRANSISTOR
Q20	2SA1576(QR)	TRANSISTOR
Q21	2SC4081(QRS)	TRANSISTOR
Q101	2SC4081(QRS)	TRANSISTOR
Q102	2SC4081(QRS)	TRANSISTOR
Q103	2SC4081(QRS)	TRANSISTOR
Q104	DTA144EU	TRANSISTOR

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
Q105	2SC4081(QRS)	TRANSISTOR	
Q106	DTA124EU	TRANSISTOR	
Q108	DTC144WU	TRANSISTOR	
Q109	DTC124EU	TRANSISTOR	
Q110	2SA1576(QR)	TRANSISTOR	
Q111	2SC4081(QRS)	TRANSISTOR	
Q112	2SA1576(QR)	TRANSISTOR	
Q113	2SC4081(QRS)	TRANSISTOR	
Q114	2SA1576(QR)	TRANSISTOR	
Q115	2SC4081(QRS)	TRANSISTOR	
Q116	2SC4081(QRS)	TRANSISTOR	
Q119	2SC4081(QRS)	TRANSISTOR	
Q201	DTC124TU	TRANSISTOR	
Q202	DTC124TU	TRANSISTOR	
Q203	DTC124EU	TRANSISTOR	
Q205	DTA114EU	TRANSISTOR	
Q206	DTC114WU	TRANSISTOR	
Q207	DTC124EU	TRANSISTOR	
Q210	DTC144WU	TRANSISTOR	
Q211	DTA114EU	TRANSISTOR	
Q301	2SA933S(Q)	TRANSISTOR	
Q302	2SA933S(Q)	TRANSISTOR	
Q303	DTC124EU	TRANSISTOR	
Q304	2SA933S(Q)	TRANSISTOR	
D2	1SS355	DIODE	
D7	1SS355	DIODE	
D101	DAN202U	DIODE	
	or MA141WK	DIODE	
D102	1SS355	DIODE	
D103	DAN202U	DIODE	
	or MA141WK	DIODE	
D203	1SS355	DIODE	
D204	1SS355	DIODE	
R3	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R4	QRSA08J-430YN	RESISTOR	43Ω,1/10W
R5	QRSA08J-300YN	RESISTOR	30Ω,1/10W
R6	QRSA08J-271YN	RESISTOR	270Ω,1/10W
R7	QRSA08J-330YN	RESISTOR	33Ω,1/10W
R8	QRSA08J-300YN	RESISTOR	30Ω,1/10W
R9	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R10	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R11	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R12	NVP1311-153N	V RESISTOR,REC FM LEVEL	
R13	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R14	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R15	QRSA08J-301YN	RESISTOR	300Ω,1/10W
R16	QRSA08J-151YN	RESISTOR	150Ω,1/10W
R17	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R18	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R19	NRVA62D-203N	RESISTOR	20kΩ,1/16W
R20	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R21	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R22	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R23	QRSA08J-104YN	RESISTOR	100kΩ,1/10W
R24	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R25	QRSA08J-512YN	RESISTOR	5.1kΩ,1/10W
R26	QRSA08J-272YN	RESISTOR	2.7kΩ,1/10W
R27	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R28	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R30	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R31	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R32	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R33	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R34	QRSA08J-301YN	RESISTOR	300Ω,1/10W
R35	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R36	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R37	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R38	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R39	QRSA08J-162YN	RESISTOR	1.6kΩ,1/10W
R40	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R41	QRSA08J-272YN	RESISTOR	2.7kΩ,1/10W
R42	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R43	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R44	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R48	QRSA08J-681YN	RESISTOR	680Ω,1/10W
R101	QRSA08J-152YN	RESISTOR	1.5kΩ,1/10W
R102	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R103	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R104	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R105	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R106	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R107	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R108	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R109	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W
R110	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R111	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R112	QRSA08J-821YN	RESISTOR	820Ω,1/10W
R113	QVPA603-222Z	V RESISTOR,S-SP VIDEO EQ	
R114	QVPA603-222Z	V RESISTOR,S-EP VIDEO EQ	
R115	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R116	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R117	QRSA08J-752YN	RESISTOR	7.5kΩ,1/10W
R118	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R119	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R120	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R121	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R122	QRSA08J-821YN	RESISTOR	820Ω,1/10W
R123	QRSA08J-821YN	RESISTOR	820Ω,1/10W
R124	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R125	QRSA08J-333YN	RESISTOR	33kΩ,1/10W
R126	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R127	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R128	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R129	QRSA08J-511YN	RESISTOR	510Ω,1/10W
R130	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R131	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R132	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
R133	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R134	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R135	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R136	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R137	QRSA08J-331YN	RESISTOR	330Ω,1/10W
R138	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R139	QRSA08J-561YN	RESISTOR	560Ω,1/10W
R140	QRSA08J-302YN	RESISTOR	3kΩ,1/10W
R141	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
R142	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
R149	QRSA08J-151YN	RESISTOR	150Ω,1/10W
R150	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
R151	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R201	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R202	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R203	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R204	QRSA08J-274YN	RESISTOR	270kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R205	QRSA08J-102YN	RESISTOR	1kΩ,1/10W
R209	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R214	QRSA08J-560YN	RESISTOR	56Ω,1/10W
R215	QRSA08J-560YN	RESISTOR	56Ω,1/10W
R216	QVPA603-331Z	V RESISTOR,AUDIO REC FM LEVEL	
R217	QRSA08J-153YN	RESISTOR	15kΩ,1/10W
R218	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R219	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W
R220	QRSA08J-332YN	RESISTOR	3.3kΩ,1/10W
R301	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R302	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R303	QRSA08J-471YN	RESISTOR	470Ω,1/10W
R304	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R305	QRSA08J-683YN	RESISTOR	68kΩ,1/10W
R306	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R307	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
R308	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
C1	QCYA1EK-104	CAPACITOR	0.1μF,25V
C2	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C3	QEK60JM-107	E CAPACITOR	100μF,6.3V
C4	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C5	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C12	QCTA1CH-100	CAPACITOR	10pF,16V
C13	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C14	QCYA1EK-473	CAPACITOR	0.047μF,25V
C15	QCYA1EK-223	CAPACITOR	0.022μF,25V
C18	QCYA1EK-223	CAPACITOR	0.022μF,25V
C19	QCYA1EK-473	CAPACITOR	0.047μF,25V
C20	QCTA1CH-100	CAPACITOR	10pF,16V
C21	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C22	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C23	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C26	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C27	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C28	QEK60JM-476	E CAPACITOR	47μF,6.3V
C29	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C30	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C31	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C32	QCYA1HJ-222	CAPACITOR	0.0022μF,50V
C33	QCYA1HJ-222	CAPACITOR	0.0022μF,50V
C34	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C35	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C36	QCFA1CZ-105	CAPACITOR	1μF,16V
C37	QCTA1CH-391	CAPACITOR	390pF,16V
C38	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C39	QCTA1CH-151	CAPACITOR	150pF,16V
C40	QCFA1CZ-474	CAPACITOR	0.47μF,16V
C41	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C42	QEKF0JM-476	E CAPACITOR	47μF,6.3V
C43	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C44	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C45	QEKF1CM-476	E CAPACITOR	47μF,16V
C46	QCTA1CH-331	CAPACITOR	330pF,16V
C47	QCTA1CH-101	CAPACITOR	100pF,16V
C48	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C49	QCTA1CH-121	CAPACITOR	120pF,16V
C50	QCTA1CH-151	CAPACITOR	150pF,16V
C52	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C53	QCTA1CH-121	CAPACITOR	120pF,16V
C54	QCTA1CH-121	CAPACITOR	120pF,16V
C55	QCTA1CH-331	CAPACITOR	330pF,16V
C60	QCTA1CH-361	CAPACITOR	360pF,16V
C68	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C69	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C70	QCTA1CH-151	CAPACITOR	150pF,16V
C74	QCYA1EK-104	CAPACITOR	0.1μF,25V
C101	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C102	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C103	QCTA1CH-101	CAPACITOR	100pF,16V
C104	QCTA1CH-101	CAPACITOR	100pF,16V
C105	QCTA1CH-270	CAPACITOR	27pF,16V
C106	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C107	QCTA1CH-680	CAPACITOR	68pF,16V
C108	QCTA1CH-390	CAPACITOR	39pF,16V
C109	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C110	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C111	QCTA1CH-470	CAPACITOR	47pF,16V
C112	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C113	QCTA1CH-470	CAPACITOR	47pF,16V
C115	QCTA1CH-390	CAPACITOR	39pF,16V
C116	QCTA1CH-180	CAPACITOR	18pF,16V
C117	QCTA1CH-100	CAPACITOR	10pF,16V
C118	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C119	QCTA1CH-220	CAPACITOR	22pF,16V
C120	QCTA1CH-150	CAPACITOR	15pF,16V
C122	QCTA1CH-270	CAPACITOR	27pF,16V
C123	QCTA1CH-680	CAPACITOR	68pF,16V
C124	QCTA1CH-150	CAPACITOR	15pF,16V
C125	QCSA1HJ-820	CAPACITOR	82pF,50V
C126	QCTA1CH-100	CAPACITOR	10pF,16V
C127	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C128	QEK61CM-476	E CAPACITOR	47μF,16V
C129	QCFA1HZ-103	CAPACITOR	0.01μF,50V
C132	QCYA1HK-102	CAPACITOR	0.001μF,50V
C201	QCFA1EZ-104	CAPACITOR	0.1μF,25V
C202	QCTA1CH-391	CAPACITOR	390pF,16V
C203	QCTA1CH-561	CAPACITOR	560pF,16V
C204	QCTA1CH-102	CAPACITOR	0.001μF,16V
C205	QCTA1CH-561	CAPACITOR	560pF,16V
C206	QCTA1CH-102	CAPACITOR	0.001μF,16V
C207	QCFA1CZ-224	CAPACITOR	0.22μF,16V
C208	QCTA1CH-391	CAPACITOR	390pF,16V
C209	QEK60JM-107	E CAPACITOR	100μF,6.3V
C210	QCYA1HK-103	CAPACITOR	0.01μF,50V
C211	QCYA1HK-103	CAPACITOR	0.01μF,50V
C213	QCTA1CH-331	CAPACITOR	330pF,16V
C214	QCTA1CH-330	CAPACITOR	33pF,16V
C216	QCYA1HK-103	CAPACITOR	0.01μF,50V
C218	QCTA1CH-102	CAPACITOR	0.001μF,16V
C219	QCYA1HK-103	CAPACITOR	0.01μF,50V
C220	QEK61AM-476	E CAPACITOR	47μF,10V
C221	QCYA1HK-103	CAPACITOR	0.01μF,50V
C224	QCFA1CZ-224	CAPACITOR	0.22μF,16V
C225	QCYA1HK-103	CAPACITOR	0.01μF,50V
C226	QCTA1CH-101	CAPACITOR	100pF,16V
C301	QCYA1EK-223	CAPACITOR	0.022μF,25V
C302	QCTA1CH-121	CAPACITOR	120pF,16V
C303	QCTA1CH-220	CAPACITOR	22pF,16V
C305	QCTA1CH-102	CAPACITOR	0.001μF,16V
C306	QCTA1CH-220	CAPACITOR	22pF,16V
C307	QEKF1CM-106	E CAPACITOR	10μF,16V
C308	QCYA1HK-103	CAPACITOR	0.01μF,50V
L1	PELN0975-101JZ	COIL	100μH
L2	PELN0975-101JZ	COIL	100μH

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	L3	PU59988-151JY	COIL	150μH
	L4	PU59988-221J	COIL	220μH
	L5	PELN0975-101JZ	COIL	100μH
	L7	PU59988-180J	COIL	18μH
	L8	PU59988-330J	COIL	33μH
	L9	PU59988-330J	COIL	33μH
	L10	PU59988-181J	COIL	180μH
	L12	PELN0975-101JZ	COIL	100μH
	L101	PU59988-560J	COIL	56μH
	L102	PU59988-120J	COIL	12μH
	L103	PU59988-330J	COIL	33μH
	L104	PU59988-330J	COIL	33μH
	L105	PU59988-220JY	COIL	22μH
	L106	PU59988-180J	COIL	18μH
	L107	PU59988-390J	COIL	39μH
	L108	PU59988-121JY	COIL	120μH
	L109	PU59988-100J	COIL	10μH
	L112	PELN0975-101JZ	COIL	100μH
	L201	PELN0975-101JZ	COIL	100μH
	L202	PELN0530-221JZ	COIL	220μH
	L301	PU59988-150J	COIL	15μH
	L302	PELN0975-101JZ	COIL	100μH
	SLD1	PQ21805	SHIELD FLAME	
	CN1	PU59973-11	CONNECTOR,(1-11)UPPER DRUM	
	CN2	PEMC1056-114	CONNECTOR,(1-14)MAIN AUDIO	
	CN3	PEMC1056-114	CONNECTOR,(1-14)MAIN VIDEO	

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DIGITAL SUB BOARD ASSEMBLY <49>

	PWBA5	PB10972C5	DIGITAL SUB BOARD ASSY,S7000EH	
		PB10972A5-01	DIGITAL SUB BOARD ASSY,S7000EG	
	CN101	PEMC0723-010	CONNECTOR,(2-11)MAIN,S7000EG	
		PEMC0723-012	CONNECTOR,(1-12)MAIN,S7000EH	
	CN102	PEMC0723-010	CONNECTOR,(4-13)MAIN,S7000EG	
		PEMC0723-014	CONNECTOR,(1-14)MAIN,S7000EH	
	CN104	PEMC1079-006	CONNECTOR,(1-6)PDC S7000EH	

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PDC BOARD ASSEMBLY(S7000EH) <70>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	PWBA6	PB10940C6	PDC BOARD ASSEMBLY	
	IC701	MV1820E	IC	
		or MV1820F	IC	
	R702	QRD161J-472	RESISTOR	4.7kΩ,1/6W
	R703	QRD161J-221	RESISTOR	220Ω,1/6W
	R704	QRD161J-221	RESISTOR	220Ω,1/6W
	C701	QCT30CH-160	CAPACITOR	16pF
	C702	QCT30CH-160	CAPACITOR	16pF
	C703	QCC11CJ-104	CAPACITOR	0.1μF,16V
	C704	QCVB1CN-103	CAPACITOR	0.01μF,16V
	C705	QCVB1CN-103	CAPACITOR	0.01μF,16V
	C706	QCVB1CN-103	CAPACITOR	0.01μF,16V
	C707	QCC11CJ-473	CAPACITOR	0.047μF,16V
	C708	QCVB1CN-103	CAPACITOR	0.01μF,16
	C709	QEKJ1CM-476	E CAPACITOR	47μF,16
	L701	PU48530-100J	COIL	10μ
	LC701	PU60950-101GZ	N FILTER	
	LC702	PU59736-103	N FILTER	
	LC703	PU60950-101GZ	N FILTER	
	LC705	PU60950-101GZ	N FILTER	
⚠	X701	PEVB0480	CRYSTAL RESONATOR	
	SLD1	PU61069-1-2	SHIELD CASE	
	SLD2	PU61070	SHIELD COVER	
	SLD3	PU61071	SHIELD PLATE	
	CN701	PEMC1080-106	CONNECTOR,(1-6)DIGITAL SUB	

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Y/C SEPA BOARD ASSEMBLY <89>

	PWBA	PB20669D	Y/C SEPA BOARD ASSEMBLY	
	IC1	NJM2240M	IC	
	IC2	JCP0042	IC	
	Q1	2SC4081(QRS)	TRANSISTOR	
	Q2	2SA1576(QRS)	TRANSISTOR	
	Q3	2SC4081(QRS)	TRANSISTOR	
	Q4	2SA1576(QRS)	TRANSISTOR	
	Q5	2SC4081(QRS)	TRANSISTOR	
	Q6	2SA1576(QRS)	TRANSISTOR	
	Q7	2SC4081(QRS)	TRANSISTOR	
	Q8	2SC4081(QRS)	TRANSISTOR	
	Q9	2SC4081(QRS)	TRANSISTOR	
	Q10	2SC3932(ST)	TRANSISTOR	
	Q11	2SC4081(QRS)	TRANSISTOR	
	Q12	2SC4081(QRS)	TRANSISTOR	
	Q13	2SC4081(QRS)	TRANSISTOR	
	Q14	2SC3932(ST)	TRANSISTOR	
	Q15	2SA1576(QRS)	TRANSISTOR	
	D1	DAP202U	DIODE	
	R1	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R2	NRSA63J-471N	RESISTOR	470Ω,1/16
	R3	NRSA63J-361N	RESISTOR	360Ω,1/16
	R4	NRSA63G-332N	RESISTOR	3.3kΩ,1/16
	R5	NRSA63J-271N	RESISTOR	270Ω,1/16
	R6	NRSA63J-271N	RESISTOR	270Ω,1/16
	R7	NRSA63J-271N	RESISTOR	270Ω,1/16
	R8	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R9	NRSA63J-473N	RESISTOR	47kΩ,1/16
	R10	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R11	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R12	NRSA63J-222N	RESISTOR	2.2kΩ,1/16
	R13	NRSA63J-182N	RESISTOR	1.8kΩ,1/16
	R14	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R15	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R16	NRSA63J-222N	RESISTOR	2.2kΩ,1/16
	R17	NRSA63J-681N	RESISTOR	680Ω,1/16
	R18	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R19	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R21	NRSA63J-222N	RESISTOR	2.2kΩ,1/16
	R22	NRSA63J-681N	RESISTOR	680Ω,1/16
	R23	NRSA63J-102N	RESISTOR	1kΩ,1/16
	R24	NRSA63J-222N	RESISTOR	2.2kΩ,1/16

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R25	NRSA63J-132N	RESISTOR	1.3kΩ,1/16W
R26	NRSA63J-472N	RESISTOR	4.7kΩ,1/16W
R27	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R28	NRSA63J-361N	RESISTOR	360Ω,1/16W
R29	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R30	NRSA63J-223N	RESISTOR	22kΩ,1/16W
R31	NRSA63J-223N	RESISTOR	22kΩ,1/16W
R32	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R33	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
R34	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
R35	NRSA63J-472N	RESISTOR	4.7kΩ,1/16W
R36	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R37	NRSA63J-361N	RESISTOR	360Ω,1/16W
R38	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R39	NRSA63J-0R0N	RESISTOR	0Ω,1/16W
R40	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R41	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
R42	NRSA63J-331N	RESISTOR	330Ω,1/16W
R43	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R44	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R45	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R46	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R47	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R48	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R49	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R50	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R51	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R54	NRSA63J-103N	RESISTOR	10kΩ,1/16W
R63	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
R66	NRSA63J-103N	RESISTOR	10kΩ,1/16W
R67	NRSA63J-153N	RESISTOR	15kΩ,1/16W
R68	NVP1311-223N	V RESISTOR,DIGITAL I/O LEVEL	
C1	NCS31HJ-8R0A	CAPACITOR	8pF,50V
C2	NCB31HK-103A	CAPACITOR	0.01μF,50V
C3	QEK60JM-107	E CAPACITOR	100μF,6.3V
C4	NCB31HK-103A	CAPACITOR	0.01μF,50V
C5	QEK61EM-475	E CAPACITOR	4.7μF,25V
C6	NCB31HK-102A	CAPACITOR	0.001μF,50V
C7	NCB31HK-103A	CAPACITOR	0.01μF,50V
C8	NCT06CH-5R0A	CAPACITOR	5pF,50V
C9	NCB31HK-103A	CAPACITOR	0.01μF,50V
C10	NCB31HK-103A	CAPACITOR	0.01μF,50V
C11	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C12	QEK60JM-337	E CAPACITOR	330μF,6.3V
C13	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C14	QEK60JM-107	E CAPACITOR	100μF,6.3V
C15	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C16	QEK60JM-107	E CAPACITOR	100μF,6.3V
C17	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C18	QEK60JM-107	E CAPACITOR	100μF,6.3V
C19	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C20	QEK60JM-107	E CAPACITOR	100μF,6.3V
C21	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C22	QEK60JM-337	E CAPACITOR	330μF,6.3V
C24	QEK60JM-476	E CAPACITOR	47μF,6.3V
C25	NCB31HK-103A	CAPACITOR	0.01μF,50V
C26	QEK61HM-105	E CAPACITOR	1μF,50V
C27	NCB31HK-103A	CAPACITOR	0.01μF,50V
C28	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C29	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C30	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C31	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C32	QEK60JM-476	E CAPACITOR	47μF,6.3V
C33	NCB31HK-103A	CAPACITOR	0.01μF,50V
C34	NCB31HK-103A	CAPACITOR	0.01μF,50V
C35	QEK60JM-476	E CAPACITOR	47μF,6.3V
C36	NCB31HK-103A	CAPACITOR	0.01μF,50V
C37	QEK61CM-106	E CAPACITOR	10μF,16V
C38	QEK60JM-476	E CAPACITOR	47μF,6.3V
C39	NCB31HK-103A	CAPACITOR	0.01μF,50V
C40	NCB31HK-103A	CAPACITOR	0.01μF,50V
C41	NCB31HK-103A	CAPACITOR	0.01μF,50V
C42	NCB31HK-103A	CAPACITOR	0.01μF,50V
C43	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C44	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C45	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C46	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C47	NCB31HK-103A	CAPACITOR	0.01μF,50V
C48	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C56	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C64	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C66	NCS31HJ-470A	CAPACITOR	47pF,50V
C67	NCS31HJ-470A	CAPACITOR	47pF,50V
C68	NCS31HJ-470A	CAPACITOR	47pF,50V
C69	NCS31HJ-470A	CAPACITOR	47pF,50V
C70	NCS31HJ-470A	CAPACITOR	47pF,50V
C71	NCS31HJ-470A	CAPACITOR	47pF,50V
C72	NCS31HJ-470A	CAPACITOR	47pF,50V
C73	NCS31HJ-470A	CAPACITOR	47pF,50V
C74	NCS31HJ-470A	CAPACITOR	47pF,50V
C75	NCS31HJ-470A	CAPACITOR	47pF,50V
C76	NCS31HJ-470A	CAPACITOR	47pF,50V
C77	NCS31HJ-470A	CAPACITOR	47pF,50V
C78	NCS31HJ-470A	CAPACITOR	47pF,50V
C79	NCS31HJ-470A	CAPACITOR	47pF,50V
C82	NCB31HK-103A	CAPACITOR	0.01μF,50V
C83	QEK60JM-476	E CAPACITOR	47μF,6.3V
C84	NCF31EZ-104A	CAPACITOR	0.1μF,25V
C89	QEKC1CM-106	E CAPACITOR	10μF,16V
C91	QEK61HM-474	E CAPACITOR	0.47μF,50V
C92	QEK61HM-474	E CAPACITOR	0.47μF,50V
L1	PU48530-100J	COIL	10μH
L2	PU48530-101K	COIL	100μH
L3	PU59153-101K	COIL	100μH
L4	PU59153-101K	COIL	100μH
L5	PU48530-101K	COIL	100μH
L6	PU48530-101K	COIL	100μH
L7	PU48530-101K	COIL	100μH
L8	PU59153-101K	COIL	100μH
L9	PU48530-101K	COIL	100μH
L10	PU48530-101K	COIL	100μH
LPF1	PELN0922-S	LOW PASS FILTER	
LPF2	PELN0922-S	LOW PASS FILTER	
LPF3	PELN0922-S	LOW PASS FILTER	
LPF4	PELN0922-S	LOW PASS FILTER	
LPF5	PELN0922-S	LOW PASS FILTER	
LC1	PU59736-102	N FILTER	
LC2	PU59736-331	N FILTER	
SLD1	PQ34851-1-1	SHIELD FRAME	
SLD2	PQ34852-1-2	SHIELD COVER	
CN1	PEMC0712-112	PIN HEADER	
CN2	PEMC0712-110	PIN HEADER	

SECTION 6
TECHNICAL INFORMATION

6.1 SYSCON CIRCUIT

6.1.1 Syscon CPU pin function(IC601) 1/2

PIN NO.	LABEL	IN/OUT	NOTE
1	A.LVL.R	IN	AUDIO INDICATOR LEVEL INPUT(Rch)
2	A.LVL.L	IN	AUDIO INDICATOR LEVEL INPUT(Lch)
3	IF AGC	IN	IF AGC DETECT
4	AVRG FM	IN	AUTO TRACKING DATA(AVRG VOLTAGE OF PB LEVEL INPUT)
5	AVSS	-	GND
6	TEST	-	GND
7	X2	-	TIMER CLOCK(32.768KHz)
8	X1	-	TIMER CLOCK(32.768KHz)
9	VSS	-	GND
10	OSC1	IN	SYSTEM CLOCK(10MHz)
11	OSC2	OUT	SYSTEM CLOCK(10MHz)
12	RESET	IN	RESET AT CONNECT VCR TO AC
13	(NMI)	-	NC
14	STTS	IN	LEADER TAPE DETECT(DETECT ON:L)
15	SHUTTLE	IN	SHUTTLE SWITCH
16	JSA	IN	JOG DIAL PULSE INPUT(A)
17	JSB	IN	JOG DIAL PULSE INPUT(A)
18	END.S	IN	TRAILER TAPE DETECT(DETECT ON:L)
19	SYNC DET	IN	SYNC DETECT(NO SYNC:H)
20	LOCK DET	IN	TUNING LOCK CHECK
21	R.PAUSE	IN	REMOTE PAUSE CONTROL(PAUSE ON:L)
22	TU FG	IN	TAKE-UP REEL ROTATION DET/TAPE REMAIN
23	SUP FG	IN	SUPPLY REEL ROTATION DET/TAPE REMAIN
24	FLY E.	OUT	FLYING ERASE HEAD CONTROL(FE ON:H)
25	M.CE	OUT	MEMORY IC CHIP ENABLE
26	S.V.RESET	OUT	VIDEO CPU RESET
27	S.V.CS	OUT	VIDEO CPU CHIP ENABLE
28	M DATA	OUT	MEMORY IC DATA
29	PLL CE	IN	TUNING IC CHIP ENABLE
30	MODE1	-	NC
31	EXP DATA	OUT	EXPANDER IC DATA OUTPUT
32	H SEL	OUT	HEAD SELECT CONTROL (SP:L/LP:M/EP:H)
33	REC ST(H)	OUT	REC START:H
34	A/M/S	OUT	PRE/REC CIRCUIT CONTROL(AUTO:M/MANUAL:H/S&S:L)
35	V.REC(H)	OUT	VIDEO REC MODE:H
36	I2C SCL	OUT	NICAM DATA TRANSFER CLOCK
37	I2C SDA	OUT	NICAM CONTROL DATA OUTPUT
38	I.EXP CLK	OUT	EXPANDER IC(IC609) TRANSFER CLOCK
39	I.EXP DATA	OUT	EXPANDER IC(IC609) SERIAL DATA
40	RAE	OUT	REMOTE PAUSE CONTROL OUTPUT

Table 6-1-1 SYSCON CPU pin function(1/2)

6.1.2 Syscon CPU pin function(IC601) 2/2

PIN NO.	LABEL	IN/OUT	NOTE
41	SP(L)	OUT	SP MODE:L
42	MODE2	-	NC
43	D.MUTE	OUT	DEMODULATOR AUDIO MUTE CONTROL(MUTE ON:H)
44	EE	OUT	EE MODE:L
45	VPCTL	OUT	V.PULSE ADDITION TIMING CONTROL
46	EXP DATA 2	OUT	EXPANDER IC(IC608) DATA OUTPUT
47	COM CLOCK	OUT	MEMORY IC DATA TRANSFER CLOCK
48	H REC ST	OUT	HiFi AUDIO REC START:L
49	-	-	GND
50	RC IN	IN	REMOTE CONTROL DATA INPUT
51	A.MUTE	OUT	AUDIO MUTE CONTROL(MUTE ON:H)
52	CTL C/D	IN	CTL PULSE INPUT(MODE DETECT/BLANK PORTION DET)
53	P.MUTE	OUT	PICTURE MUTE CONTROL(MUTE:L)
54	-	-	GND
55	CAP REV	OUT	CAPSTAN MOTOR CONTROL(FWD:H/REV:L)
56	DUTY I/O	IN/OUT	IN/OUT INDEX DATA CONTROL
57	S-OUT	OUT	ON SCREEN CONTROL DATA
58	S-IN	IN	ON SCREEN/FDP CONTROL DATA
59	S-CLK	OUT	DATA TRANSFER CLOCK
60	H DATA	OUT	VIDEO IC CONTROL DATA
61	STB	OUT	CLOCK OUTPUT PERMISSION
62	H CLK	OUT	VIDEO IC DATA TRANSFER CLOCK
63	VCC	-	SYSTEM POWER
64	S.DATA	OUT	SERVO IC CONTROL DATA
65	SERVO	OUT	CAPSTAN MOTOR CONTROL(SERVO:L/SYSCON:H)
66	PAUSE(L)	OUT	CAPSTAN MOTOR CONTROL(PAUSE:L)
67	CTL CLOCK	IN	INDEX CONTROL
68	LCM1	OUT	LOADING MOTOR DRIVE(1)
69	CAP FG	IN	TAPE SPEED DETECT/BACK SPACE COUNT
70	LCM2	OUT	LOADING MOTOR DRIVE(2)
71	D.FF	IN	DRUM ROTATION DETECT/REC TIMING CONTROL
72	AVCC	-	SYSTEM POWER(for ANALOG)
73	WIDE DET	IN	NC
74	PROTECT	IN	SWD5V/12V DETECT
75	DRUM V	OUT	DRUM MOTOR VOLTAGE CONTROL
76	CAP V	OUT	CAPSTAN MOTOR VOLTAGE DETECT
77	6.5H DET	IN	PB SWITCHING POINT ADJUST PULSE
78	DV DET	IN	DRUM DRIVE VOLTAGE DET
79	P.DOWN	IN	POWER DOWN DETECT(POWER DOWN:L)
80	S CURVE	IN	TUNING CHECK

Table 6-1-2 SYSCON CPU pin function(1/2)